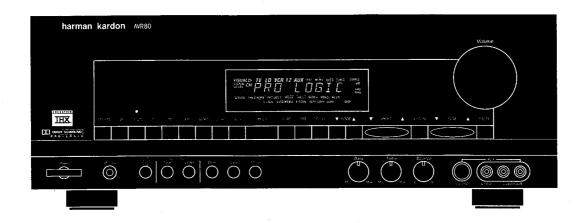
Manual A

The Harman Kardon Model AVR80/AVR80MK II

AUDIO AND VIDEO RECEIVER

Technical Manual



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B	AVR80	:North America area model Black version
₿	AVR80	, ,
B	AVR80MK II	(with Tact type mains switch) :North America area model Black version
₿	AVR80[MOMS]	(with Tact type mains switch) AVR80 :International model Black version

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harman/kardon

Parts and Service Office 80 Crossways Park West, Woodbury, N.Y. 11797 1112-AVR80 1200 Printed in Japan

SPECIFICATIONS

FRONT AMP SECTION		
	Nominal	Limit
Continuous Power Output (STEREO MODE), Input: CD	≥110 W	≥100 W
THD: 0.09%, 8 ohms		
Both Channel Driven (20 Hz - 20	kHz)	
(SURROUND MODE)	≥85 W	≥75 W
THD: 0.3%, 8 ohms, 1 kHz		
THD at 100 W, 8 ohms, Input: CD		40.000 /
20 Hz	≤0.03% ≤0.01%	≤0.09% ≤0.09%
1 kHz 20 kHz	≤0.01 <i>%</i> ≤0.05%	≤0.09 <i>%</i> ≤0.09%
IM Distortion at 100 W, 8 ohms, Vo		20.0070
in blotomen at 100 tr, 0 clime, 10	≤0.03%	≤0.09%
Input Sensitivity for Rated Power C	Output (100 W)	
CD/TAPE1/TAPE2/TV/LD	250 mV	220-290 mV
VCR1/VCR2/AUX	250 mV	220-290 mV
S/N Ratio Input Shorted at 1kHz 1\		
CD	≥82 dB	≥78 dB
Tone Control	+10 dB	+10 ±2.5 dB
Bass: 100 Hz	+10 dB -10 dB	+10 ±2.5 dB - 10 ±2.5 dB
Treble: 10kHz	+10 dB	+10 ±2.5 dB
TIGDIG. TON IZ	-10 dB	- 10 ±2.5 dB
Frequency Response at -3dB		
Mode: Stereo, Ref: 1 kHz, Sub W	oofer: ON	
	1z - 70 kHz	90 Hz - 50 kHz
Mode: Stereo, Ref: 1 kHz, Sub W	oofer: OFF	
	Hz - 70kHz	15 Hz - 50 kHz
Channel Crosstalk Input Shorted b	v 1 kohms	
•		
100Hz	≥55 dB	≥50 dB
100Hz 1 kHz	≥55 dB ≥45 dB	≥40 dB
100Hz	≥55 dB	
100Hz 1 kHz	≥55 dB ≥45 dB ≥35 dB	≥40 dB ≥30 dB
100Hz 1 kHz 10 kHz CENTER AMP SECTION	≥55 dB ≥45 dB	≥40 dB
100Hz 1 kHz 10 kHz CENTER AMP SECTION RMS Output Power	≥55 dB ≥45 dB ≥35 dB	≥40 dB ≥30 dB
100Hz 1 kHz 10 kHz CENTER AMP SECTION	≥55 dB ≥45 dB ≥35 dB	≥40 dB ≥30 dB
100Hz 1 kHz 10 kHz CENTER AMP SECTION RMS Output Power THD (0.3%, 8 ohms, 1 kHz)	≥55 dB ≥45 dB ≥35 dB Nominal	≥40 dB ≥30 dB Limit
100Hz 1 kHz 10 kHz CENTER AMP SECTION RMS Output Power THD (0.3%, 8 ohms, 1 kHz) Only Center Channel Driven	≥55 dB ≥45 dB ≥35 dB Nominal	≥40 dB ≥30 dB Limit
100Hz 1 kHz 10 kHz CENTER AMP SECTION RMS Output Power THD (0.3%, 8 ohms, 1 kHz) Only Center Channel Driven S/N Ratio (Input Level : 141 mV) Input Shorted, IHF-A WTD Frequency Response at-3 dB	≥55 dB ≥45 dB ≥35 dB Nominal	≥40 dB ≥30 dB Limit ≥100 W ≥68 dB
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VIDEO AMP SECTION Nominal Limit Input Sensitivity/Impedance LD. TV. VCR1, VCR2, AUX 1 VP-P/75 Ω ±1 dB	
Input Sensitivity/Impedance	
·	
LD, TV, VCR1, VCR2, AUX 1 VP-P/75 Ω ±1 dB Output Level/Impedance	
VCR1, VCR2, Monitor 1 VP-P/75 Ω ±1 dB	
Frequency Response at-3 dB DC-8 MHz DC-6MHz	
requestoy receptation at 5 as 25 c min.	
FM SECTION	
Nominal Limit	
Tuning Cover Range 50 kHz Step 87.50 - 108.00 MHz	
Mono Usable Sensitivity (75 ohms Input, 98 MHz)	
≤13.5 dbf ≤19.2 dbf	
Image Rejection (at 98 MHz)	
USA/Canada >50 dB ≥40 dB	
Europe ≥70 dB ≥60 dB	
IF Rejection (at 98 MHz) ≥70 dB ≥65 dB	
50 dB Quieting Sensitivity (at 98 Mhz, 100% MOD.)	
IHF Band Pass Filter	
Stereo ≤39.2 dbf ≤43.3 dbf	
Distortion (1 kHz, 100% MOD. at 98 MHz, 65dbf Input)	
IHF Band Pass Filter	
Mono ≤0.2% ≤0.5%	
S/N Ratio (500 μV Input, 100% MOD. at 98 MHz) IHF Band Pass Filter	
Stereo ≥65 dB ≥60 dB	
Frequency Response (30 Hz - 15 kHz) USA/Canada De-Emphasis: 75µS +0.5 dB +1.0 dB	
Europe De-Emphasis: 50µS -2.0 dB -4.0 dB	
AM Suppression at 98 MHz	
≥55 dB ≥45 dB	
Muting Threshold (at 98 MHz) 27.2 dbf 23.3-32.0dbf	
Overload Break-up at 98 MHz 71 dbf 65 dbf	
Capture Ratio at 65 dbf ≤1.5 dB ≤2.5 dB	
Stereo Separation (at 98 MHz, 100% MOD., 500 μV Input)	
IHF Band Pass Filter	
1 kHz ≥40 dB ≥30 dB	
Tape out Level (at 98 MHz)	
800 mV 600-1300 m\	/
AM SECTION	à
AM SECTION	į
Nominal Limit	
Tuning Cover Range (MW) USA/Canada: 10 kHz Step 520 - 1710 kHz	
Other : 9 kHz Step 531 - 1602 kHz	
Tuning Cover Range (LW)	

	000	
AM SECTION		
	Nominal	Limit
Tuning Cover Range (MW)		
USA/Canada : 10 kHz Step	520 - 1710 kH	z
Other: 9 kHz Step	531 - 1602 kH	z
Tuning Cover Range (LW)		
1 kHz Step	152 kHz - 282	kHz
Usable Sensitivity		
MW at 999/1000 kHz	≤500 μV/m	•
LW at 207 kHz	≤1500 μV/m	•
lmage Rejection (at 999 kHz)		≥35 dB
IF Rejection (at 999/1000 kHz)	≥60 dB	≥50 dB
Spurious Rejection (at 999/1000 kHz		
	≥65 dB	≥55 dB
AGC Figure of Merit (From 100 mV/m		
·	≥55 dB	≥48 dB
Distortion (999/1000 Hz, 30% MOD.		
	≤1.0%	≤2.0%
Frequency Response (999/1000 kHz)		
	kHz 150 Hz	2 - 1.8 kHz
Selectivity (at 999/1000 Hz)		
9 kHz/10 kHz		≥20 dB
18 kHz/20kHz	≥70 dB	≥60 dB
S/N Ratio (999/1000 kHz, With Anter	• •	•
(Europe : Using 15 kHz L.P.F.)		≥45 dB
Overload Break-up at 999/1000 kHz		>500 m\//m
TARE Output Level at 999/1000 kHz	≥1000 mV/m	

TAPE Output Level at 999/1000 kHz (5 mV/m Input) 240 mV

150-340 mV

GENERAL		
	Nominal	Limit
Power Consumption		
At Rated Power All Channel Driven	400 W	300 - 500W
Idling at Minimum Volume Control	55 W	45 - 65 W
Power Supplies :		
USA/Canada	AC 120 V, 6	0 Hz
Europe	AC 230 V, 5	0 Hz
Dimensions (W x H x D):		
inches	17 ^{1/16} x 6 ^{3/3}	² x 18 ^{1/16}
mm	444 x 160 x	459
Weight (lbs/kgs)	32.0/14.4	

These specifications are service target specs.

Specifications and components are subject to change without notice.

Overall performance will be maintained or improved.

ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

- Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off
 any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a
 commercially available discharging wrist strap device, which should be removed for potential shock reasons
 prior to applying power to the unit under test.
- 2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
- 3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
- 4. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ES devices.
- 5. Do not use freon-propelled chemicals. These can generate electrical change sufficient to damage ES devices.
- 6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material.)
- 7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
 - CAUTION: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
- 8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together or your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

PRODUCT SAFETY NOTICE

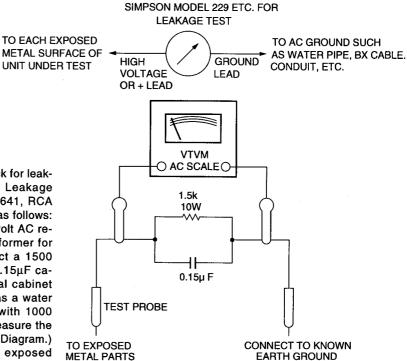
Each precaution in this manual should be followed during servicing.

Components identified with the IEC symbol \triangle in the parts list are of special significance to safety. When replacing a component identified with \triangle , use only the replacement parts designated, or parts with the same ratings or resistance, wattage, or voltage that are designated in the parts list in this manual. Leakage - current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

LEAKAGE TEST (FOR SERVICE ENGINEERS IN THE U.S.A.)

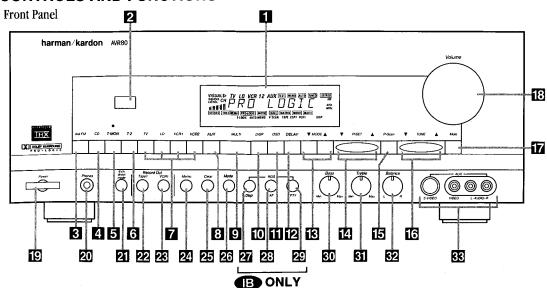
Before returning the unit to the user, perform the following safety checks:

- Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the unit.
- Be sure that any protective devices such as nonmetallic control knobs, insulating fishpapers, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacity networks, mechanical insulators, etc. Which were removed for servicing are properly reinstalled.
- 3. Be sure that no shock hazard exists; check for leakage current using Simpson Model 229 Leakage Tester, standard equipment item No. 21641, RCA Model WT540A or use alternate method as follows: Plug the power cord directly into a 120-volt AC receptacle (do not use an Isolation Transformer for this test). Using two clip leads, connect a 1500 Ohm, 10-watt resistor paralleled by a 0.15µF capacitor, in series with all exposed metal cabinet parts and a known earth ground, such as a water pipe or conduit. Use a VTVM or VOM with 1000 Ohms per volt, or higher sensitivity to measure the AC voltage drop across the resistor. (See Diagram.) Move the resistor connection to each exposed metal part having a return path to the chassis (antenna, metal, cabinet, screw heads, knobs and control shafts, escutcheon, etc.) and measure the AC voltage drop across the resistor. (This test should be performed with the power switch in both the On and Off positions.)



A reading of 0.35 volt RMS or more is excessive and indicates a potential shock hazard which must be corrected before returning the unit to the owner.

CONTROLS AND FUNCTIONS

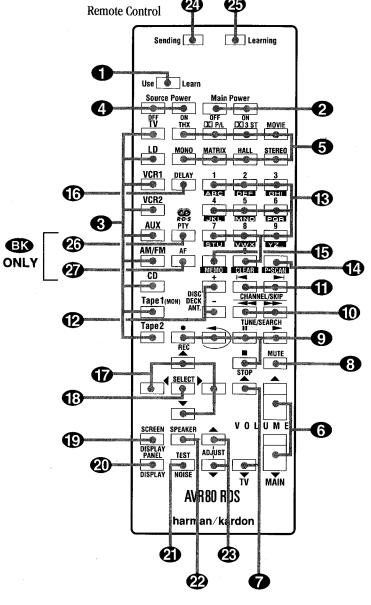


- Information display: This display delivers messages and status indications to help you operate the receiver. Refer to the separate diagram for a complete explanation of the FL display.
- **2** Remote Sensor Window: The sensor behind this window receives infrared signals from the remote control. Aim the remote at this area and do not block or cover it unless an external remote sensor is installed.
- AM/FM Tuner Mode Selection:
 Press this button once to select the tuner. Press it again to switch between FM, MW and LW.
- **4 CD:** Press this button to select the CD player.
- **5** Tape1/Monitor: Press this button to select Tape One as the input source. A red LED above the button will illuminate to indicate that the Tape Monitor has been selected.
- **6 Tape 2:** Press this button to select Tape 2.
- **7 Video Sources:** Press any of these buttons to select a video input source.
- **3** Aux: Press this button to select the source connected to the front panel Aux jacks.
- Multiroom Audio Select: Press this button to turn on the feed to the remote zone. The remote zone will stay on after the main power switch is turned off until it is switched off by the remote room control or by pressing this button again.
- **10 Display:** Press this button to turn off the front panel FL display. The **DISP** indicator will illuminate to remind you that the unit is still turned on.
- iii OSD (On Screen Display):
 Press the button briefly to display a system status report on your video screen. Press and hold the button to change the video standard.
- **Delay:** Press this button to increase the delay to the rear (surround) channels.
- **IB Mode:** Press these buttons to scroll up ▲ or down ▼ through the list of available surround modes.

- 4 P-Set: Press these buttons to manually scroll up ▲ or down ▼ through the stations programmed into the receiver's preset memory.
- **EP-Scan:** Press this button to automatically scan through the FM or AM stations preset into the receiver's memory. Press the button again to stop the scan when the tuner is at the desired station.
- Tune: Press these buttons to manually scan up ▲ or down ▼ through the FM, LW or AM bands.
- **TMute:** Press this button to cut the output to the speakers. Press it again to return to the previous volume level.
- Volume Control: Turn the knob clockwise to increase volume, counterclockwise to decrease the volume. Note that approximately two revolutions of the knob are required to go from no output to maximum
- EPower: press this button once to turn the unit on or off. In order to use the remote control to turn the unit on the power switch must be pressed once, and then the unit must be turned off via the remote. The LED indicator light surrounding the power switch will glow amber when the unit is in the Standby mode and green when the unit is on.
- 20 Headphone Jack: Plug standard stereo headphones into this jack for private listening.
- NOTE: When the headphones are in use the output to the speakers is muted and the surround mode is automatically switched to STEREO. When the headphones are removed from the jack, sound to the speakers is restored and the unit returns to the previous sound mode.
- **21 6 Channel Direct:** Press this button to select the output of an external multichannel audio adapter.
- **22 Tape 1 Copy:** Press this button to select the input for the recorder connected to **Tape 1**. The first press will select the source currently being listened to. Press again to select the input in the following order: **Tuner** → **CD** → **Tape 2** → **Source**.

- ▼ VCR1 Copy: Press this button to select the input to the recorder connected to VCR1. The first press selects the input currently being viewed. Press the button again to select the input in the following order:

 TV→LD→VCR2→AUX→Source
- Memo: The memo button is used to enter stations to the tuner's preset memory in either the manual or automatic modes. It is also used in clearing the memory and entering the sleep timer period.
- **Clear:** The clear button is used to cancel tuning, memory input or when clearing the unit's memories.
- **26 FM Mode:** Press this button to select the tuning mode for FM stations.
- **27 RDS Display:** When a station transmitting RDS data is tuned, press this button to view the tuning frequency.
- **23 RDS AF:** The button is used to search for stations transmitting a specific programme type that offers better reception than the currently tuned station.
- PT RDS PTY: Press this button to view the programme type (PTY) when an RDS station is tuned. It is also used to initiate a search for RDS stations transmitting a specific programme type.
- **60 Bass:** This knob adjusts the tone of low frequency sounds. Turn it to the right to boost bass frequencies or to the left to cut bass frequencies.
- **31 Treble:** This knob adjusts the tone of high frequency sounds. Turn it to the right to boost high frequencies or to the left to cut high frequencies.
- **62 Balance:** This knob adjusts the balance between the front left and right speakers.
- Front Panel Inputs: Audio or Video sources connected to these jacks may be selected by pressing the Aux button 3.



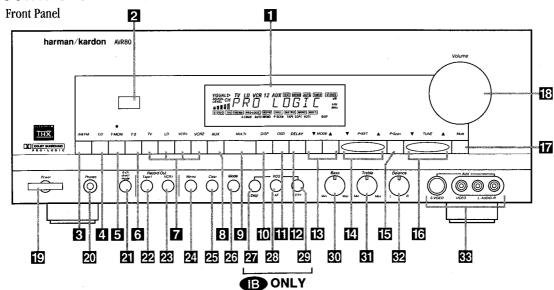
- Use/Learn: This switch selects the operation mode of the remote control. Slide it to the left for normal operation. Slide it to the right when the remote is being programmed.
- Main Power: Press these buttons to turn the unit on or off.
- Source Selection: Pressing one of these buttons selects the input source that will be listened to through the receiver. When a source is selected the remote's transport and numeric number buttons will also transmit the commands needed to control that machine.
- **4 Source Power:** Press these buttons to control power for the last source device selected.
- **Surround Mode Selection:** Press one of these buttons to select a surround mode for the current listening session.
- **6 Main Volume:** These buttons control the unit's volume. Note that all channels are controlled simultaneously.

- TV Volume: These buttons adjust the volume for TV using the remote control codes programmed into the remote for a TV set or cable box. These buttons control the TV set only, regardless of which source is selected. This enables you to control the audio level of a TV set even when the receiver is not in use.
- Mute: Press this button to temporarily cut the audio output of the receiver. Press it again to return to the previous volume level.
- **9** Transport Controls: These buttons control the tape or disc motion of the last playback source selected with the Source Selection buttons **9**. Use them as you would the Play, Stop, Pause, Reverse Play and Record buttons on any VCR, CD or LD remote control.
- Tune/Search & Fast Forward: (These buttons have multiple functions, which vary according to the input device selected.)
- When the **TUNER** has been selected, these buttons are used to manually tune stations.

- b. When CD, LD or VCR is the input source, these buttons act as the Fast Scan Forward or Fast Scan Reverse controls.
- **(The Example 1)** These buttons have multiple functions, which vary according to the input device selected.)
- a. When the **TUNER** has been selected, these buttons will scroll up → I or down I → through the stations that have been programmed in the preset memory.
- b. When **TV** or **VCR** is selected, they are the channel up → or channel down → tuning buttons.
- c. When CD or LD is selected these buttons act as forward and reverse "Skip" buttons to move to the next track or chapter on the disc.
- d. When a compatible Harman Kardon cassette player has been selected as **Tape 1** or **Tape 2**, these buttons move the tape forward ►I or backwards ►■ to the next selection using the Music Scan feature.
- (2) Disc/Deck/Ant: (These buttons have multiple functions, which vary according to the input device selected.)
- a. When CD is selected and the unit is a CD changer, these buttons will change to the next disc + or previous disc -.
- b. When **Tape 1** or **Tape 2** is the input source, and the tape machine is a compatible Harman Kardon dual cassette deck, these buttons will switch between the "A" and "B" sides.
- c. When VCR 1 or VCR 2 is the input source, these buttons switch between VCR and TV as the unit's output.
- d. When TV is the input source, these buttons may switch between video input sources or antenna/video, depending on the TV model.
- e. When **LD** is the input source, these buttons will switch the side being played from "A" to "B" on compatible dual side players.
- (B) Number Keys: These buttons serve as a ten button numeric keypad to enter tuner preset positions. They are also to be used to select channel numbers when TV has been selected on the remote, or to select track numbers on a CD or LD player, depending on how the remote has been programmed. The letters below the buttons are used to enter information for tuner station names.
- NOTE: The **0** button has a dual function. It also serves as the **CLEAR** button for use in programming the tuner or clearing the system memory.
- P-scan: Press this button to automatically scan through the stations preset into the tuner memory. Press the button again to end the scan when the tuner stops at the desired station.

- **(5) Memo:** The memo button is used to enter stations to the tuner's preset memory in either the manual or automatic modes. It is also used in the process of clearing the memory.
- **(B) Delay:** This button controls the amount of sound delay to the rear (surround) channels. Press it to increase the delay in the steps shown in the main Information Display or on-screen graphics.
- Menu Controls: These buttons control the action of the cursor or the selection of menu items when the receiver is being configured using the setup menus.
- Select: This button enters settings to the receiver's memory during system configuration.
- Screen Display: Press this button to activate the on screen menu system.
- ② Panel Display: Press this button to turn off all displays and indicators in the Information Display except for a small DISP indication in the lower right corner of the display Press the button again to turn the display back on. Note that the display will briefly illuminate when a command is sent to the unit from the front panel or remote, even though the display is turned off.
- Test Noise: Press this button to begin calibration of the output level for each channel. A test signal will immediately be heard from the left front speaker and the TEST indicator 2 will flash.
- 2 Speaker Select: When setting the system output levels, this button selects the speaker position being adjusted. Press it once to advance to the next speaker after each position is adjusted.
- **② Level Adjust:** When setting the system output levels, press these buttons to increase or decrease the output level
- Sending LED: This indicator should flash any time a button is pressed to confirm that a command is being sent to the receiver or another unit. If the light is dim or does not illuminate when a button is pressed the batteries in the remote should be replaced.
- (3) Learn LED: This indicator will illuminate when a button on the remote is being programmed with signals from another remote during the "learning" mode. The light will go out when the signal is received and memorized.
- RDS PTY: Press this button to view the Programme Type information for stations transmitting RDS data. This button is also used for PTY Auto Search functions
- **?? RDS AF:** This button initiates a search of all RDS stations to find a stronger signal for the programme type currently selected.

CONTROLS AND FUNCTIONS



- Information display: This display delivers messages and status indications to help you operate the receiver. Refer to the separate diagram for a complete explanation of the FL display.
- 2 Remote Sensor Window: The sensor behind this window receives infrared signals from the remote control. Aim the remote at this area and do not block or cover it unless an external remote sensor is installed.
- AM/FM Tuner Mode Selection:
 Press this button once to select the tuner. Press it again to switch between FM, MW and LW.
- **4 CD:** Press this button to select the CD player.
- Tape1/Monitor: Press this button to select Tape One as the input source. A red LED above the button will illuminate to indicate that the Tape Monitor has been selected.
- **6 Tape 2:** Press this button to select Tape 2.
- ▼ Video Sources: Press any of these buttons to select a video input source.
- **3 Aux:** Press this button to select the source connected to the front panel **Aux** jacks.
- Multiroom Audio Select: Press this button to turn on the feed to the remote zone. The remote zone will stay on after the main power switch is turned off until it is switched off by the remote room control or by pressing this button again.
- 10 Display: Press this button to turn off the front panel FL display. The DISP indicator will illuminate to remind you that the unit is still turned on.
- iii OSD (On Screen Display): Press the button briefly to display a system status report on your video screen. Press and hold the button to change the video standard.
- **Delay:** Press this button to increase the delay to the rear (surround) channels.
- **Mode:** Press these buttons to scroll up ▲ or down ▼ through the list of available surround modes.

- [4] P-Set: Press these buttons to manually scroll up ▲ or down ♥ through the stations programmed into the receiver's preset memory.
- **IS P-Scan:** Press this button to automatically scan through the FM or AM stations preset into the receiver's memory. Press the button again to stop the scan when the tuner is at the desired station.
- **16 Tune:** Press these buttons to manually scan up ▲ or down ▼ through the FM, LW or AM bands.
- **T Mute:** Press this button to cut the output to the speakers. Press it again to return to the previous volume level.
- **13 Volume Control:** Turn the knob clockwise to increase volume, counterclockwise to decrease the volume. Note that approximately two revolutions of the knob are required to go from no output to maximum volume.
- FP Power: press this button once to turn the unit on or off. In order to use the remote control to turn the unit on the power switch must be pressed once, and then the unit must be turned off via the remote. The LED indicator light surrounding the power switch will glow amber when the unit is in the Standby mode and green when the unit is on.
- **20 Headphone Jack:** Plug standard stereo headphones into this jack for private listening.
- NOTE: When the headphones are in use the output to the speakers is muted and the surround mode is automatically switched to STEREO. When the headphones are removed from the jack, sound to the speakers is restored and the unit returns to the previous sound mode.
- **21 6 Channel Direct:** Press this button to select the output of an external multichannel audio adapter.
- 22 Tape 1 Copy: Press this button to select the input for the recorder connected to Tape 1. The first press will select the source currently being listened to. Press again to select the input in the following order:

 Tuner→CD→Tape 2→Source.

- ▼CR1 Copy: Press this button to select the input to the recorder connected to VCR 1. The first press selects the input currently being viewed. Press the button again to select the input in the following order:

 TV→LD→VCR2→AUX→Source
- 221 Memo: The memo button is used to enter stations to the tuner's preset memory in either the manual or automatic modes. It is also used in clearing the memory and entering the sleep timer period.
- **Zi Clear:** The clear button is used to cancel tuning, memory input or when clearing the unit's memories.
- **26 FM Mode:** Press this button to select the tuning mode for FM stations.
- **27 RDS Display:** When a station transmitting RDS data is tuned, press this button to view the tuning frequency.
- **23 RDS AF:** The button is used to search for stations transmitting a specific programme type that offers better reception than the currently tuned station.
- 29 RDS PTY: Press this button to view the programme type (PTY) when an RDS station is tuned. It is also used to initiate a search for RDS stations transmitting a specific programme type.
- **80 Bass:** This knob adjusts the tone of low frequency sounds. Turn it to the right to boost bass frequencies or to the left to cut bass frequencies.
- **ITreble:** This knob adjusts the tone of high frequency sounds. Turn it to the right to boost high frequencies or to the left to cut high frequencies.
- **§2 Balance:** This knob adjusts the balance between the front left and right speakers.
- Front Panel Inputs: Audio or Video sources connected to these jacks may be selected by pressing the Aux button 3.



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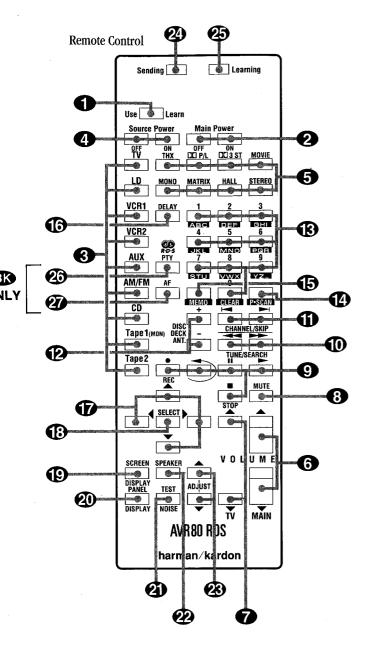
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- **(1)** Use/Learn: This switch selects the operation mode of the remote control. Slide it to the left for normal operation. Slide it to the right when the remote is being programmed.
- Main Power: Press these buttons to turn the unit on or off.
- Source Selection: Pressing one of these buttons selects the input source that will be listened to through the receiver. When a source is selected the remote's transport and numeric number buttons will also transmit the commands needed to control that machine.
- **4 Source Power:** Press these buttons to control power for the last source device selected.
- **Surround Mode Selection:** Press one of these buttons to select a surround mode for the current listening session.
- **6 Main Volume:** These buttons control the unit's volume. Note that all channels are controlled simultaneously.

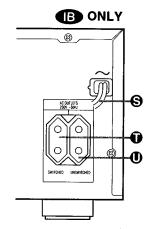
- **7 TV Volume:** These buttons adjust the volume for TV using the remote control codes programmed into the remote for a TV set or cable box. These buttons control the TV set only, regardless of which source is selected. This enables you to control the audio level of a TV set even when the receiver is not in use.
- Mute: Press this button to temporarily cut the audio output of the receiver. Press it again to return to the previous volume level.
- **9 Transport Controls:** These buttons control the tape or disc motion of the last playback source selected with the Source Selection buttons **3.** Use them as you would the Play, Stop, Pause, Reverse Play and Record buttons on any VCR, CD or LD remote control.
- **(These buttons have multiple functions, which vary according to the input device selected.)**
- When the **TUNER** has been selected, these buttons are used to manually tune stations.

- b. When CD, LD or VCR is the input source, these buttons act as the Fast Scan Forward Fast Scan Reverse controls.
- (These buttons have multiple functions, which vary according to the input device selected.)
- b. When TV or VCR is selected, they are the channel up
 or channel down
 tuning buttons.
- c. When CD or LD is selected these buttons act as forward and reverse "Skip" buttons to move to the next track or chapter on the disc.
- d. When a compatible Harman Kardon cassette player has been selected as Tape 1 or Tape 2, these buttons move the tape forward → or backwards → to the next selection using the Music Scan feature.
- **Disc/Deck/Ant:** (These buttons have multiple functions, which vary according to the input device selected.)
- a. When CD is selected and the unit is a CD changer, these buttons will change to the next disc + or previous disc -.
- b. When **Tape 1** or **Tape 2** is the input source, and the tape machine is a compatible Harman Kardon dual cassette deck, these buttons will switch between the "A" and "B" sides.
- c. When VCR 1 or VCR 2 is the input source, these buttons switch between VCR and TV as the unit's output.
- d. When TV is the input source, these buttons may switch between video input sources or antenna/video, depending on the TV model.
- e. When **LD** is the input source, these buttons will switch the side being played from "A" to "B" on compatible dual side players.
- Number Keys: These buttons serve as a ten button numeric keypad to enter tuner preset positions. They are also to be used to select channel numbers when TV has been selected on the remote, or to select track numbers on a CD or LD player, depending on how the remote has been programmed. The letters below the buttons are used to enter information for tuner station names.
- NOTE: The 0 button has a dual function. It also serves as the **CLEAR** button for use in programming the tuner or clearing the system memory.
- **(2) P-Scan:** Press this button to automatically scan through the stations preset into the tuner memory. Press the button again to end the scan when the tuner stops at the desired station.

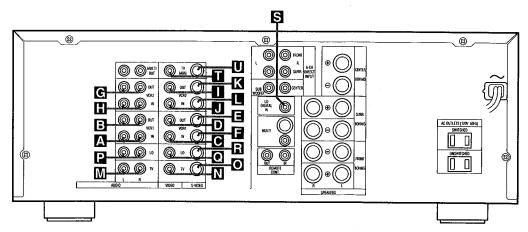
- **(5)** Memo: The memo button is used to enter stations to the tuner's preset memory in either the manual or automatic modes. It is also used in the process of clearing the memory.
- **(B)** Delay: This button controls the amount of sound delay to the rear (surround) channels. Press it to increase the delay in the steps shown in the main Information Display or on-screen graphics.
- **Menu Controls:** These buttons control the action of the cursor or the selection of menu items when the receiver is being configured using the setup menus.
- **® Select:** This button enters settings to the receiver's memory during system configuration.
- **© Screen Display:** Press this button to activate the on screen menu system.
- ② Panel Display: Press this button to turn off all displays and indicators in the Information Display except for a small DISP indication in the lower right corner of the display ② Press the button again to turn the display back on. Note that the display will briefly illuminate when a command is sent to the unit from the front panel or remote, even though the display is turned off.
- ② Test Noise: Press this button to begin calibration of the output level for each channel. A test signal will immediately be heard from the left front speaker and the TEST indicator ② will flash.
- Speaker Select: When setting the system output levels, this button selects the speaker position being adjusted. Press it once to advance to the next speaker after each position is adjusted.
- **Exercise Adjust:** When setting the system output levels, press these buttons to increase or decrease the output level.
- Sending LED: This indicator should flash any time a button is pressed to confirm that a command is being sent to the receiver or another unit. If the light is dim or does not illuminate when a button is pressed the batteries in the remote should be replaced.
- ② Learn LED: This indicator will illuminate when a button on the remote is being programmed with signals from another remote during the "learning" mode. The light will go out when the signal is received and memorized.
- RDS PTY: Press this button to view the Programme Type information for stations transmitting RDS data. This button is also used for PTY Auto Search functions.
- **PRDS AF:** This button initiates a search of all RDS stations to find a stronger signal for the programme type currently selected.

- ♠ FM Antenna: Connect an indoor or external FM antenna to these terminals. Note that the supplied 300 ohm to 75 ohm adapter is required for connections from twin lead or inside dipole antennas.
- (a) AM Antenna: Connect the AM loop antenna supplied with the receiver to these terminals. If an external AM antenna is used, make connections to the AM and GND terminals in accordance with the instructions supplied with the antenna.
- **© Tape 1 Out:** Connect these jacks to the RECORD/INPUT jacks of an audio recorder.
- **①** Tape 1 In: Connect these jacks to the PLAY/OUT jacks of an audio recorder.
- (a) Tape 2 Out: Connect these jacks to the RECORD/INPUT jacks of a second audio recorder.
- **Tape 2 In:** Connect these jacks to the PLAY/OUT jacks of a second audio recorder.
- **© CD IN:** Connect these jacks to the output of a compact disc player or CD changer.
- **(†)** Front L: Connect these terminals to the front left speaker.
- **Front R:** Connect these terminals to the front right speaker.
- Center: Connect these terminals to the center speaker.
- **Surround L:** Connect these terminals to the left surround speaker.

- Surround R: Connect these terminals to the right surround speaker.
- Pre-Outs: If external power amplifiers are used for any channels, remove the connection pin and connect the jack to the input of the amplifier.
- **(a)** 6 Channel Direct Input: If an external digital audio decoder is used for 5.1 (Dolby AC-3) audio, connect the outputs of that decoder to these terminals.
- Multi Room Interface: For multiroom installations where keypad remotes are in use, connect the keypad interface to this jack.
- Multi IR: Connect the output of an IR sensor in a remote room to this jack to operate the AVR80's multiroom control system.
- **(h)** Multi-Out: When using the AVR 80 for multi-room audio, connect this jack to the input of the audio amplifier powering the remote room speakers.
- **S Power Cable:** Connect the AC plug to a non-switched AC wall output.



- **1** Switched AC Outlet: This outlet may be used to power any device that you wish to have on when the unit is turned on.
- ① Unswitched AC Outlet: This outlet may be used to power any AC device. The power will remain on at this outlet regardless of whether the AVR80 is on or off.
- NOTE: The power consumption of the device plugged into each of these outlets should not exceed 120 watts.
- ♥ Remote IR In: If the AVR80's front panel IR sensor is blocked due to cabinet doors or other obstructions, an external IR sensor may be used. Connect the output of the sensor to this jack.
- M Remote IR Out: This connection permits the IR sensor in the receiver to serve other remote controlled devices. Connect this jack to the "IR IN" jack on Harman Kardon or other compatible equipment.



- A VCR 1 Audio In: Connect these jacks to the audio PLAY/OUT jacks of a VCR
- **E VCR 1 Audio Out:** Connect these jacks to the RECORD/IN audio jacks of a VCR.
- C VCR 1 Video In: Connect these jacks to the composite video PLAY/OUT jacks of a VCR.
- **D VCR 1 Video Out:** Connect these jacks to the composite video RECORD/IN jacks of a VCR.
- VCR 1 S Video Out: Connect these jacks to the "S" video RECORD/IN jacks of a VCR.
- VCR 1 S Video In: Connect these jacks to the "S" video RECORD/OUT jacks of a VCR.

C VCR 2 Audio Out: Connect these jacks to the audio jacks RECORD/IN of a second VCR.

- H VCR 2 Audio In: Connect these jacks to the audio PLAY/OUT jacks of a second VCR.
- VCR 2 Video Out: Connect these jacks to the composite video RECORD/IN jacks of a second VCR.
- JVCR 2 Video In: Connect these jacks to the composite video PLAY/OUT jacks of a second VCR.
- K VCR 2 S Video Out: Connect these jacks to the "S" video RECORD/IN jacks of a second VCR.
- VCR 2 S Video In: Connect these jacks to the "S" video RECORD/OUT jacks of a second VCP

M TV Audio In: Connect the audio outputs of a TV, cable converter or satellite receiver to these jacks.

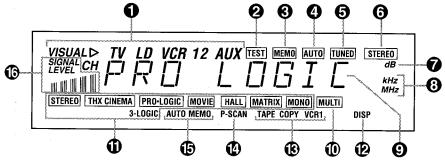
- TV Video In: Connect the composite video output of a TV, cable converter or satellite receiver to this jack. The signals received at this jack are also used to trigger the "TV Auto-On" feature.
- ▼ TV S Video In: Connect the "S" video output of a TV, cable converter or satellite receiver to this jack.
- LD Audio In: Connect the audio output of a laser disc player to these jacks.
- **Q LD Video In:** Connect the composite video output of a laser disc player to this jack.

- LD S Video In: Connect the "S" video output of a laser disc player to this jack
- **S** LD Digital In: Connect the coax digital output of a laser disc or CD player to this jack.

NOTE: This connection is for standard, two channel PCM audio. DO NOT connect the modulated RF digital output used for multichannel (AC-3) audio to this jack.

- TV Monitor Video Out: Connect this jack to the composite video input of a TV monitor or video projector to view the on screen control menus and output of the receiver's video switcher.
- UTV Monitor S Video Out: Connect this jack to the S video input of a TV monitor or video projector to view S video sources selected by the receiver's video switcher.

Information Display

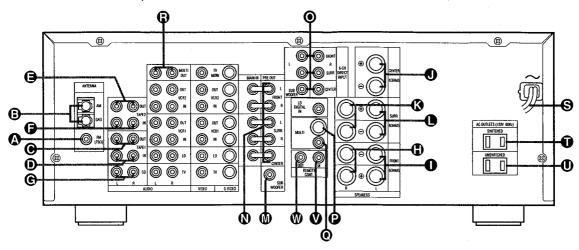


- "Visual" Indicator: These indicators display which input source is being fed to the video monitor output.
- **2 Test:** This indicator flashes when the output levels are being set using the built in test signal generator.
- **3 Memo:** This indicator flashes when the **Memo** button is pressed when entering presets and other information into the tuner's memory.
- **4) Auto:** This indicator signifies that the Automatic Tuning mode is in use for FM broadcasts.
- **5 Tuned:** This indicator lights when an AM or FM station is properly tuned and locked.

- **6 Stereo:** This indicator lights when an FM station is broadcasting in stereo.
- **Volume indication:** The last two indicators on the information display indicate the volume level. Note that **DdB** is the reference level, not an indication that there is no output.
- (3) Tuner Frequency Indication: When the tuner is in use, the main Information Display will show the preset channel number, if any, the frequency band and the station frequency. Indicators at the right side of the display show kHz when an LW or AM station is tuned or MHz when an FM station is tuned.
- Main Information Display:
- This ten digit display shows messages relating to the status, input source, surround mode, tuner, volume level or other aspects of the unit's operation.
- Multi: This indicator signifies that the AVR80 is sending a program source to a remote room location. Note that it may be illuminated even when the unit is "off" in the main listening room, signifying that operation continues at another location. When a remote command is being received via the Multi IR connection, this indicator will flash

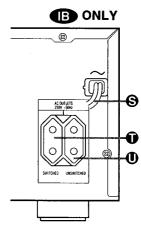
- Mode Status: These indicators display the currently selected surround mode.
- **DISP:** This indicator lights when the FL display has been turned off using the **Display** button **10** to remind you that the unit is still turned on.
- (® Copy Indicators: The TAPE COPY indicator lights when an input other than the current source has been selected to copy Tape 1. The VCR COPY1 indicator signifies that the input to VCR 1 is other than the currently selected source.
- P-Scan: This indicator flashes when the stations programmed into the tuner memory are being automatically reviewed.
- **(B)** Auto Memo: This indicator flashes when the tuner is automatically scanning for stations and entering them into the preset memory.
- **⑤** Signal Level Indication: This is a visual indication of the strength of a radio station signal. The more bars visible, the stronger the station.

Rear Panel - Audio and System Connections



- ♠ FM Antenna: Connect an indoor or external FM antenna to these terminals. Note that the supplied 300 ohm to 75 ohm adapter is required for connections from twin lead or inside dipole antennas.
- (3) AM Antenna: Connect the AM loop antenna supplied with the receiver to these terminals. If an external AM antenna is used, make connections to the AM and GND terminals in accordance with the instructions supplied with the antenna.
- ♠ Tape 1 Out: Connect these jacks to the RECORD/INPUT jacks of an audio recorder.
- **① Tape 1 In:** Connect these jacks to the PLAY/OUT jacks of an audio recorder.
- (3) Tape 2 Out: Connect these jacks to the RECORD/INPUT jacks of a second audio recorder.
- **(F)** Tape 2 In: Connect these jacks to the PLAY/OUT jacks of a second audio recorder.
- **© CD IN:** Connect these jacks to the output of a compact disc player or CD changer.
- **front L:** Connect these terminals to the front left speaker.
- **Front R:** Connect these terminals to the front right speaker.
- **1)** Center: Connect these terminals to the center speaker.
- **Surround L:** Connect these terminals to the left surround speaker.

- Surround R: Connect these terminals to the right surround speaker.
- M Subwoofer Pre-Out: Connect this jack to the line level input of a powered subwoofer. If an external subwoofer amplifier is used, connect this jack to the subwoofer amplifier input.
- Pre-Outs: If external power amplifiers are used for any channels, remove the connection pin and connect the jack to the input of the amplifier.
- 6 Channel Direct Input: If an external digital audio decoder is used for 5.1 (Dolby AC-3) audio, connect the outputs of that decoder to these terminals.
- Multi Room Interface: For multiroom installations where keypad remotes are in use, connect the keypad interface to this jack.
- Multi IR: Connect the output of an IR sensor in a remote room to this jack to operate the AVR80's multiroom control system.
- **@ Multi-Out:** When using the AVR 80 for multi-room audio, connect this jack to the input of the audio amplifier powering the remote room speakers.
- **S** Power Cable: Connect the AC plug to a non-switched AC wall output.



- Switched AC Outlet: This outlet may be used to power any device that you wish to have on when the unit is turned on.
- **①** Unswitched AC Outlet: This outlet may be used to power any AC device. The power will remain on at this outlet regardless of whether the AVR80 is on or off.

NOTE: The power consumption of the device plugged into each of these outlets should not exceed 120 watts.

- ♠ Remote IR In: If the AVR80's front panel IR sensor is blocked due to cabinet doors or other obstructions, an external IR sensor may be used. Connect the output of the sensor to this jack.
- ♠ Remote IR Out: This connection permits the IR sensor in the receiver to serve other remote controlled devices. Connect this jack to the "IR IN" jack on Harman Kardon or other compatible equipment.

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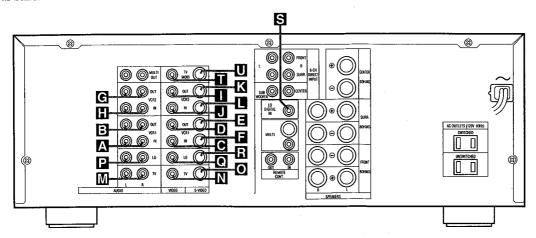
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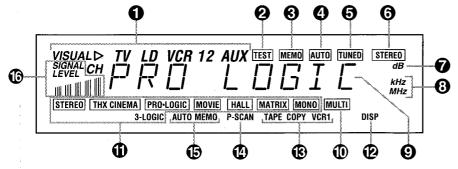
- 1 Audio In: Connect these the audio PLAY/OUT jacks
- 1 Audio Out: Connect cks to the RECORD/IN audio a VCR.
- 1 Video In: Connect these the composite video JT jacks of a VCR.
- 1 Video Out: Connect these the composite video D/IN jacks of a VCR.
- 1 S Video Out: Connect cks to the "S" video O/IN jacks of a VCR.
- 1 S Video In: Connect cks to the "S" video D/OUT jacks of a VCR.

- **G VCR 2 Audio Out:** Connect these jacks to the audio jacks RECORD/IN of a second VCR.
- H VCR 2 Audio In: Connect these jacks to the audio PLAY/OUT jacks of a second VCR.
- VCR 2 Video Out: Connect these jacks to the composite video RECORD/IN jacks of a second VCR.
- JVCR 2 Video In: Connect these jacks to the composite video PLAY/OUT jacks of a second VCR.
- K VCR 2 S Video Out: Connect these jacks to the "S" video RECORD/IN jacks of a second VCR.
- WCR 2 S Video In: Connect these jacks to the "S" video RECORD/OUT jacks of a second VCR

- M TV Audio In: Connect the audio outputs of a TV, cable converter or satellite receiver to these jacks.
- N TV Video In: Connect the composite video output of a TV, cable converter or satellite receiver to this jack. The signals received at this jack are also used to trigger the "TV Auto-On" feature.
- **TV S Video In:** Connect the "S" video output of a TV, cable converter or satellite receiver to this jack.
- ▶ LD Audio In: Connect the audio output of a laser disc player to these jacks.
- **Q LD Video In:** Connect the composite video output of a laser disc player to this jack.

- LD S Video In: Connect the "S" video output of a laser disc player to this jack.
- S LD Digital In: Connect the coax digital output of a laser disc or CD player to this jack.
- NOTE: This connection is for standard, two channel PCM audio. DO NOT connect the modulated RF digital output used for multichannel (AC-3) audio to this jack.
- TV Monitor Video Out: Connect this jack to the composite video input of a TV monitor or video projector to view the on screen control menus and output of the receiver's video switcher.
- TV Monitor S Video Out: Connect this jack to the S video input of a TV monitor or video projector to view S video sources selected by the receiver's video switcher.

tion Display



- ual" Indicator: These indicaplay which input source is ad to the video monitor output.
- This indicator flashes when but levels are being set using in test signal generator.
- no: This indicator flashes e **Memo** button is pressed ntering presets and other tion into the tuner's memory.
- This indicator signifies that omatic Tuning mode is in use proadcasts.
- ed: This indicator lights when or FM station is properly nd locked.

- **6 Stereo:** This indicator lights when an FM station is broadcasting in stereo.
- Volume indication: The last two indicators on the information display indicate the volume level. Note that DdB is the reference level, not an indication that there is no output.
- (3) Tuner Frequency Indication: When the tuner is in use, the main Information Display will show the preset channel number, if any, the frequency band and the station frequency. Indicators at the right side of the display show kHz when an LW or AM station is tuned or MHz when an FM station is tuned.
- Main Information Display: This ten digit display shows messages relating to the status, input source, surround mode, tuner, volume level or other aspects of the

unit's operation.

(D) Multi: This indicator signifies that the AVR80 is sending a program source to a remote room location. Note that it may be illuminated even when the unit is "off" in the main listening room, signifying that operation continues at another location. When a remote command is being received via the **Multi** IR connection, this indicator will flash.

- **① Mode Status:** These indicators display the currently selected surround mode.
- **DISP:** This indicator lights when the FL display has been turned off using the **Display** button **10** to remind you that the unit is still turned on.
- (8) Copy Indicators: The TAPE COPY indicator lights when an input other than the current source has been selected to copy Tape 1. The VCR COPY1 indicator signifies that the input to VCR 1 is other than the currently selected source.
- P-Scan: This indicator flashes when the stations programmed into the tuner memory are being automatically reviewed.
- **⑤** Auto Memo: This indicator flashes when the tuner is automatically scanning for stations and entering them into the preset memory.
- **⑤** Signal Level Indication: This is a visual indication of the strength of a radio station signal. The more bars visible, the stronger the station.

SERVICE PROCEDURE

1. Tracking point memory

This service procedure can be used for measurement of the tuner circuit.

With the POWER ON, press the "PRESET UP" button while pressing the "MEMO" button for at least 3 seconds or more. FLD will display "TRACKING". Frequencies will be memorized as follows:

	VERSION	P1 P2		P3	P4	
FM	B B	90.0	98.0	106.0	87.5	

	SCAN STEP	P5	P6	P7	P8	P9	P10	P11	P12~ P30
	10 KHz	600.0	1000.0	1400.0	520.0	+	+	+	+
MW	9 KHz	603.0	999.0	1404.0	531.0	Ţ	4	+	1
	LW	1	1	1	171.0	207.0	270.0	152.0	531.0

2. FLD segment illumination

This service procedure will illuminate all segments by the following steps:

With the POWER ON, press the "FM/AM(TUNER)" button while pressing the "MEMO" button for at least 3 seconds or more. This procedure takes 1 minute and 40 seconds to finish; at this point the procedure is complete.

- 1. All segments will be illuminated for 5 seconds.
- 2. At the grid "1G", segments are illuminated in the following order:
- (1) KHz \rightarrow (2) MHz \rightarrow (3) R \rightarrow (4) PEAK \rightarrow (5) L \rightarrow (6) MULTI \rightarrow (7) MONO \rightarrow (8) MATRIX \rightarrow
- $\textcircled{9} \ \ \mathsf{HALL} \ \rightarrow \ \textcircled{10} \ \ \mathsf{P-SCAN} \ \rightarrow \ \textcircled{11} \ \ \mathsf{TAPE} \ \rightarrow \ \textcircled{12} \ \ \mathsf{COPY} \ \rightarrow \ \textcircled{13} \ \ \mathsf{VCR1} \ \rightarrow \ \textcircled{14} \ \ \mathsf{SLEEP} \ \rightarrow \ \textcircled{15} \ \ \mathsf{DISP} \ \rightarrow \ \textcircled{16} \ \ \mathsf{TX}$
- 3. At the grid "2G", to "11G", each segment is illuminated individually.
- 4. At the grid "12G", segments are illuminated in the following order:
- ① VISUAL \rightarrow ② SIGNAL LEVEL \rightarrow ③ CH \rightarrow ④ SIGNAL BAR (LEFT SIDE) \rightarrow
- (5) SIGNAL BAR (2nd LEFT) → (6) SIGNAL BAR (CENTER) → (7) SIGNAL BAR (2nd RIGHT) →
- (8) SIGNAL BAR (RIGHT SIDE) \rightarrow (9) STEREO \rightarrow (10) THX CINEMA \rightarrow (11) PRO LOGIC \rightarrow
- ② MOVIE \rightarrow ③ AUTO MEMO \rightarrow ④ 3.LOGIC \rightarrow ⑤ SIMUL'D \rightarrow ⑥SURROUND

3. Selector check mode

This service program automatically operates input selector and surround mode by the following procedure. This service program continually repeats until power is shut off.

When the POWER ON, press the "SURROUND MODE+" button while pressing the "MEMO" button 3 seconds or more.

STEP	INPUT	DSP	FM MODE	FREQUENCY	COPY SWITCH		NOTES
	SELECTOR	MODE	BAND		TAPE	VCR1	
1	FM	STEREO	AUTO	98.0	SOURCE	SOURCE	
2	FM	STEREO	MONO	LAST	1	1	
3	CD	THX	AUTO	LAST	†	1	
4	TAPE1	P-LOGIC	AUTO	LAST	TUNER	SOURCE	TUNER-ON
5	TAPE2	MOVIE	AUTO	LAST	SOURCE	TV	
6	TV	3 CH	AUTO	LAST	1	SOURCE	
7	TV	HALL	AUTO	LAST	CD	LD	
8	LD	MATRIX	AUTO	LAST	TAPE2	TV	
9	VCR1	MONO	AM/MW	1000/999	TUNER	VCR2	
10	VCR2	STEREO	AUTO	98.0	TUNER	SOURCE	TUNER-ON
11	AUX	THX	AUTO	LAST	SOURCE	AUX	

4. All clear

This service program can clear all memorized operations and functions.

When the POWER ON, press the "CLEAR" button while pressing the "MEMO" button 3 seconds or more. FLD shows "CLEAR MEMO" and power will be OFF.

TEST EQUIPMENT REQUIRED

- 1) AM/FM Signal Generator
- 2) Video Signal Generator
- 3) Digital Multimeter
- 4) Distortion level meter

ALIGNMENT PROCEDURES

1. FM MONO. Distortion Adjustment

[Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
		Signal generator output to FM antenna terminal. (75 ohm)	98 MHz	500 uV/m (54 dB/m) MONO 1 KHz / Dev.40KHz 53.3% B MONO 1KHz / Dev. 75KHz 100% BR	98 MHz (P2)	L201	Distortion level Minimum at TAPE-OUT

2. FM Muting Level Adjustment

Turn variable resistor R212 and stop at position "TUNED" is not shown (not indicated), then again turn the variable resistor R212 to the opposite revolution and stop at a position "TUNED" is shown.

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to FM antenna terminal. (75 ohm)	98 MHz	10 uV/m (20 dB/m) MONO 1 KHz / Dev.40KHz 53.3% B MONO 1KHz / Dev. 75KHz 100% BK	98 MHz (P2)	R212	"TUNED" indicate on FLD
2			Over mentioned level +3 dB	AUTO SCAN	Only Confirm	"TUNED" indicate on FLD

3. FM STEREO Distortion Adjustment

Adjust the L channel with the RF signal modulated only L channel first and confirm the R channel with the RF signal modulated only R channel.

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to FM antenna terminal. (75 ohm)	98 MHz	500 uV/m (54 dB/m) L+R 1KHz / Dev. 40KHz 53.3% PILOT 19KHz / Dev. 6KHz 8%	98 MHz (P2)	IF COIL in FRONT END	Distortion level MinImum at TAPE-OUT
2			L+R 1KHz / Dev. 67.5KHz 90% PILOT 19KHz / Dev. 6.75KHz 9%		R218	Distortion level Minimum at TAPE-OUT

REMARK: Adjustment with R128 is not necessary when the distortion level is less than 0.5% with adjusting IF coil.

4. FM STEREO Separation Adjustment

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
	Signal generator output to FM antenna terminal. (75 ohm)	98 MHz	same specification as FM STEREO distortion adjustment. Input only L channel.	98 MHz (P2)	R211	Output level Minimum at TAPE-OUT channel R
2		98 MHz	same specification as FM STEREO distortion adjustment. Input only R channel.	98 MHz (P2)	R211	Output level Similar as Rch at TAPE-OUT channel L

SERVICE PROCEDURE

1. Tracking point memory

This service procedure can be used for measurement of the tuner circuit.

With the POWER ON, press the "PRESET UP" button while pressing the "MEMO" button for at least 3 seconds or more. FLD will display "TRACKING". Frequencies will be memorized as follows:

	VERSION	P1	P2	Р3	P4
FM	B B	90.0	98.0	106.0	87.5

	SCAN STEP	P5	P6	P7	P8	P9	P10	P11	P12~ P30
	10 KHz	600.0	1000.0	1400.0	520.0	4	+	ļ	+
MW	9 KHz	603.0	999.0	1404.0	531.0	+	ļ	ţ	1
	LW	†	†	1	171.0	207.0	270.0	152.0	531.0

2. FLD segment illumination

This service procedure will illuminate all segments by the following steps:

With the POWER ON, press the "FM/AM(TUNER)" button while pressing the "MEMO" button for at least 3 seconds or more. This procedure takes 1 minute and 40 seconds to finish; at this point the procedure is complete.

- 1. All segments will be illuminated for 5 seconds.
- 2. At the grid "1G", segments are illuminated in the following order:

① KHz
$$\rightarrow$$
 ② MHz \rightarrow ③ R \rightarrow ④ PEAK \rightarrow ⑤ L \rightarrow ⑥ MULTI \rightarrow ⑦ MONO \rightarrow ⑧ MATRIX \rightarrow

- 3. At the grid "2G", to "11G", each segment is illuminated individually.
- 4. At the grid "12G", segments are illuminated in the following order:
- (1) VISUAL \rightarrow (2) SIGNAL LEVEL \rightarrow (3) CH \rightarrow (4) SIGNAL BAR (LEFT SIDE) \rightarrow
- § SIGNAL BAR (2nd LEFT) → § SIGNAL BAR (CENTER) → 7 SIGNAL BAR (2nd RIGHT) →
- 8 SIGNAL BAR (RIGHT SIDE) → 9 STEREO → 10 THX CINEMA → 11 PRO.LOGIC →
- ② MOVIE \rightarrow ③ AUTO MEMO \rightarrow ④ 3.LOGIC \rightarrow ⑤ SIMUL'D \rightarrow ⑥SURROUND

3. Selector check mode

This service program automatically operates input selector and surround mode by the following procedure. This service program continually repeats until power is shut off.

When the POWER ON, press the "SURROUND MODE+" button while pressing the "MEMO" button 3 seconds or more.

STEP	INPUT	DSP	FM MODE	FREQUENCY	COPY S	WITCH	NOTES
	SELECTOR	MODE	BAND		TAPE	VCR1	
1	FM	STEREO	AUTO	98.0	SOURCE	SOURCE	
2	FM	STEREO	MONO	LAST	1	1	
3	CD	THX	AUTO	LAST	1	1	
4	TAPE1	P-LOGIC	AUTO	LAST	TUNER	SOURCE	TUNER-ON
5	TAPE2	MOVIE	AUTO	LAST	SOURCE	TV	
6	TV	3 CH	AUTO	LAST	<u>†</u>	SOURCE	
7	TV	HALL	AUTO	LAST	CD	LD	
8	LD	MATRIX	AUTO	LAST	TAPE2	TV	
9	VCR1	MONO	AM/MW	1000/999	TUNER	VCR2	
10	VCR2	STEREO	AUTO	98.0	TUNER	SOURCE	TUNER-ON
11	AUX	THX	AUTO	LAST	SOURCE	AUX	

4. All clear

This service program can clear all memorized operations and functions.

When the POWER ON, press the "CLEAR" button while pressing the "MEMO" button 3 seconds or more. FLD shows "CLEAR MEMO" and power will be OFF.

TEST EQUIPMENT REQUIRED

- 1) AM/FM Signal Generator
- 2) Video Signal Generator
- 3) Digital Multimeter
- 4) Distortion level meter

ALIGNMENT PROCEDURES

1. FM MONO. Distortion Adjustment

Step	Input Signal Source	Signal	Source Signal Output Level	Reception	Adjustment	Adjustment
	Connection	Frequency	and Modulation	Frequency	Point	Value
1	Signal generator output to FM antenna terminal. (75 ohm)	98 MHz	500 uV/m (54 dB/m) MONO 1 KHz / Dev.40KHz 53.3% B MONO 1KHz / Dev. 75KHz 100% BR	98 MHz (P2)	L201	Distortion level Minimum at TAPE-OUT

2. FM Muting Level Adjustment

Turn variable resistor R212 and stop at position "TUNED" is not shown (not indicated), then again turn the variable resistor R212 to the opposite revolution and stop at a position "TUNED" is shown.

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to FM antenna terminal. (75 ohm)	98 MHz	10 uV/m (20 dB/m) MONO 1 KHz / Dev.40KHz 53.3% B MONO 1KHz / Dev. 75KHz 100% BK	98 MHz (P2)	R212	"TUNED" indicate on FLD
2			Over mentioned level +3 dB	AUTO SCAN	Only Confirm	"TUNED" indicate on FLD

3. FM STEREO Distortion Adjustment

Adjust the **L** channel with the RF signal modulated only **L** channel first and confirm the **R** channel with the RF signal modulated only **R** channel.

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to FM antenna terminal. (75 ohm)	98 MHz	500 uV/m (54 dB/m) L+R 1KHz / Dev. 40KHz 53.3% PILOT 19KHz / Dev. 6KHz 8%	98 MHz (P2)	IF COIL in FRONT END	Distortion level Minimum at TAPE-OUT
2			L+R 1KHz / Dev. 67.5KHz 90% PILOT 19KHz / Dev. 6.75KHz 9%		R218	Distortion level Minimum at TAPE-OUT

REMARK: Adjustment with R128 is not necessary when the distortion level is less than 0.5% with adjusting IF coil.

4. FM STEREO Separation Adjustment

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to FM antenna terminal. (75 ohm)	98 MHz	same specification as FM STEREO distortion adjustment. Input only L channel.	98 MHz (P2)	R211	Output level Minimum at TAPE-OUT channel R
2		98 MHz	same specification as FM STEREO distortion adjustment. Input only R channel.	98 MHz (P2)	R211	Output level Similar as Rch at TAPE-OUT channel L

5. AM iF Adjustment

Step	Input Signal Source	Signal	Source Signal Output Level	Reception	Adjustment	Adjustment
	Connection	Frequency	and Modulation	Frequency	Point	Value
1	Signal generator output to transmission *loop antenna. (*:Standard required loop)	999 KHz B 1000 KHz	300 uV/m (50 dB/m)	Tuning point	LA06	Output level (L or R) Maximum at TAPE-OUT

This adjustment is normally not necessary, because the coil LA06 is preset by the original supplier.

6. AM Tracking Adjustment (MW)

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value		
1	Signal generator output to transmission *loop antenna. (*:Standard required loop)	603 KHz IB 600 KHz BK	Level 300 - 400 uV/m Mod. 400 Hz 30%	603 KHz B 600 KHz	LA01	Output level (L or R) Maximum at TAPE-OUT		
2		1404 KHz IB 1400 KHz	Level 300 - 400 uV/m Mod. 400 Hz 30%	1404 KHz IB 1400 KHz BK	CA01	Output level (L. or R) Maximum at TAPE-OUT		
3	Repeat step 1 and 2 until level is at maximum reading.							

7. AM Tracking Adjustment (LW)

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value		
	Signal generator output to transmission *loop antenna. (*:Standard required loop)	171 KHz	Level 300 - 400 uV/m Mod. 400 Hz 30%	171 KHz	LA03	Output level (L or R) Maximum at TAPE-OUT		
2		270 KHz	Level 300 - 400 uV/m Mod. 400 Hz 30%	270 KHz	CA08	Output level (L or R) Maximum at TAPE-OUT		
3	Repeat step 1 and 2 until level is at maximum reading.							

8. AM auto stop Adjustment

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to transmission *loop antenna. (*:Standard required loop)	999 KHz IB 1000 KHz	500 uV/m (54 dB/m)	999 KHz IB 1000 KHz BK	RA11	"TUNED" indicate on FLD
2			1000 uV/m (60 dB/m)	AUTO SCAN	Only Confirm	"TUNED" indicate on FLD

REMARK: This adjustment is related to the FM muting Level Adjustment. The FM muting Level re-adjustment is necessary after this adjustment.

9. On Screen Display VCO Adjustment

Step	Input Signal Source and Connection	- Unactiving carriement		Input selector	Adjustment Point	Adjustment Value	
1	Color bar or other standard video signal. Video signal generator output to LD video input.	IC QX60 26pin and GND.	DC voltmeter (Impedance > 10K ohm/V)	LD	CX67	2.5V +-0.1V	

REMARK: Connect the TV monitor to the monitor output terminal of the product.

10. Main amp idling current adjustment

- 1) With the power OFF, set semi fixed resistor R743 (Lch), R744 (Rch), R786 (Center ch) on the PC board (PV04) to the center position.
- 2) Connect a digital voltmeter, set for the DC range, on the emitter resistor [R759 (Lch), R760 (Rch), R794 (Center ch)] on the PC board (PV04).
- 3) After the above, adjust the idling current as follows: Turn the power ON and adjust semi – fixed resistor R743 (Lch), R744 (Rch), R786 (Center ch) while observing the digital multimeter indication. The target value is 7.2 mV (20 mA).

All values are with no load on speaker terminals, volume set to minimum and no input with the unit switched to the CD position. Always allow the amplifier to stabilize for 10 minutes or longer prior to adjusting idle current.

11. Main amp DC offset adjustment

- 1) With the power OFF, connect a digital voltmeter, set for the DC range, to the speaker terminal.
- After the above, adjust the DC offset as follows: Turn the power ON and adjust RN63 (Lch), RN64 (Rch), RN70 (Center ch) so that the output is ±20 mV.

5. AM IF Adjustment

Ste	Input Signal Source	Signal	Source Signal Output Level	Reception	Adjustment	Adjustment
	Connection	Frequency	and Modulation	Frequency	Point	Value
1	Signal generator output to transmission *loop antenna. (*:Standard required loop)	999 KHz IB 1000 KHz BK	300 uV/m (50 dB/m)	Tuning point	LA06	Output level (L or R) Maximum at TAPE-OUT

This adjustment is normally not necessary, because the coil LA06 is preset by the original supplier.

6. AM Tracking Adjustment (MW)

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to transmission *loop antenna. (*:Standard required loop)	603 KHz IB 600 KHz	Level 300 - 400 uV/m Mod. 400 Hz 30%	603 KHz IB 600 KHz BK	LA01	Output level (L or R) Maximum at TAPE-OUT
2		1404 KHz IB 1400 KHz	Level 300 - 400 uV/m Mod. 400 Hz 30%	1404 KHz IB 1400 KHz BK	CA01	Output level (L or R) Maximum at TAPE-OUT
3	Repeat step 1 and 2 until leve		um reading.			at IAP

7. AM Tracking Adjustment (LW)

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to transmission *loop antenna. (*:Standard required loop)	171 KHz	Level 300 - 400 uV/m Mod. 400 Hz 30%	171 KHz	LA03	Output level (L or R) Maximum at TAPE-OUT
2		270 KHz	Level 300 - 400 uV/m Mod. 400 Hz 30%	270 KHz	CA08	Output level (L or R) Maximum at TAPE-OUT

8. AM auto stop Adjustment

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value	
1	Signal generator output to transmission *loop antenna. (*:Standard required loop)	999 KHz IB 1000 KHz	500 uV/m (54 dB/m)	999 KHz IB 1000 KHz BK	RA11	"TUNED" indicate on FLD	
2			1000 uV/m (60 dB/m)	AUTO SCAN	Only Confirm	"TUNED" indicate on FLD	

REMARK: This adjustment is related to the FM muting Level Adjustment. The FM muting Level re-adjustment is necessary after this adjustment.

9. On Screen Display VCO Adjustment

Step	Input Signal Source Measu posit		Measuring equipment	Input selector	Adjustment Point	Adjustment Value	
1	Color bar or other standard video signal. Video signal generator output to LD video input.	IC QX60 26pin and GND.	DC voltmeter (Impedance > 10K ohm/V)	LD	CX67	2.5V +-0.1V	

REMARK: Connect the TV monitor to the monitor output terminal of the product.

10. Main amp idling current adjustment

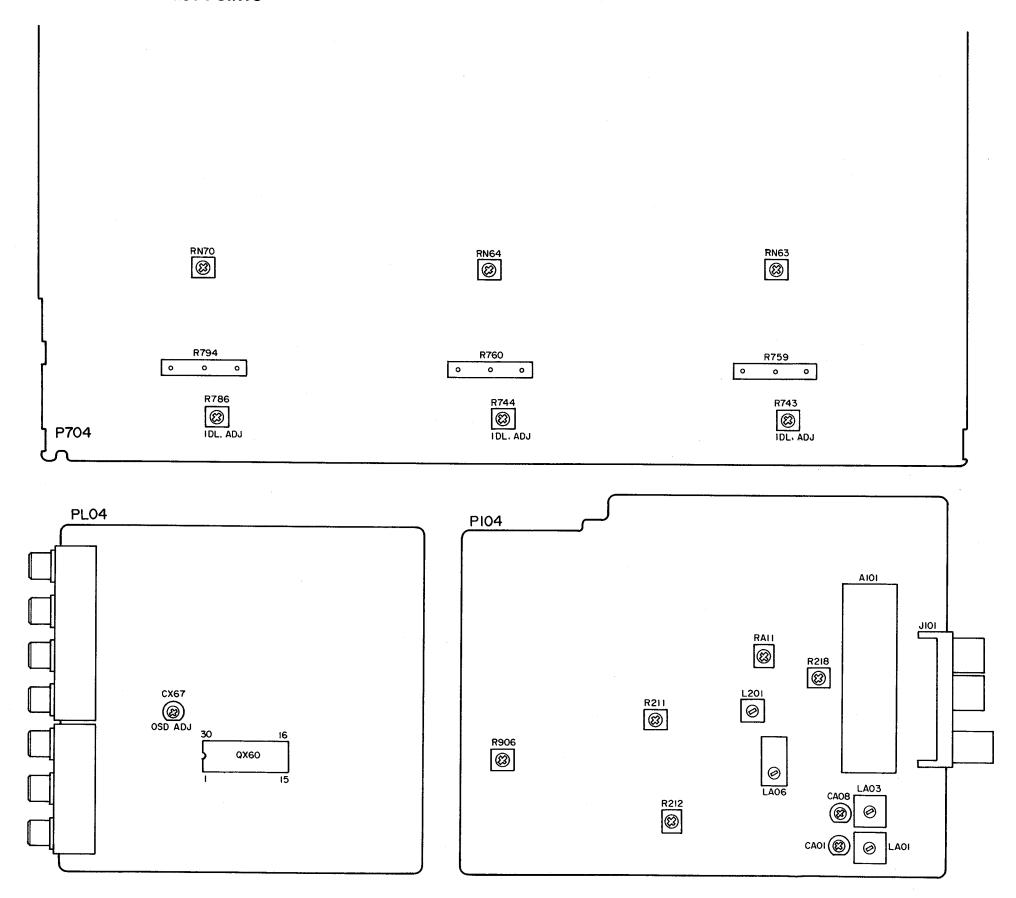
- With the power OFF, set semi fixed resistor R743 (Lch), R744 (Rch), R786 (Center ch) on the PC board (PV04) to the center position.
- Connect a digital voltmeter, set for the DC range, on the emitter resistor [R759 (Lch), R760 (Rch), R794 (Center ch)] on the PC board (PV04).
- 3) After the above, adjust the idling current as follows: Turn the power ON and adjust semi – fixed resistor R743 (Lch), R744 (Rch), R786 (Center ch) while observing the digital multimeter indication. The target value is 7.2 mV (20 mA).

All values are with no load on speaker terminals, volume set to minimum and no input with the unit switched to the CD position. Always allow the amplifier to stabilize for 10 minutes or longer prior to adjusting idle current.

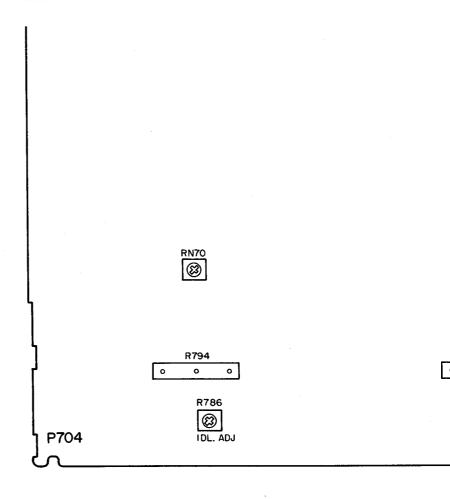
11. Main amp DC offset adjustment

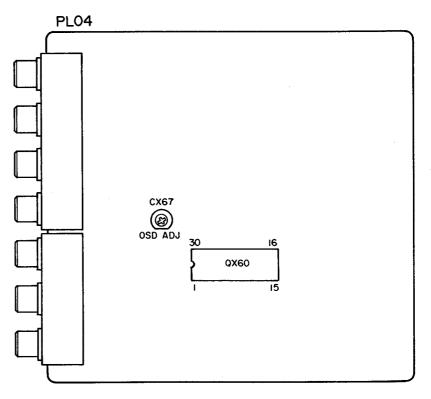
- 1) With the power OFF, connect a digital voltmeter, set for the DC range, to the speaker terminal.
- 2) After the above, adjust the DC offset as follows: Turn the power ON and adjust RN63 (Lch), RN64 (Rch), RN70 (Center ch) so that the output is ±20 mV.

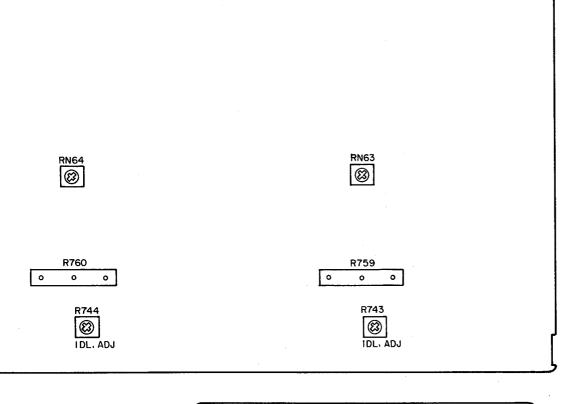
ALIGNMENT AND TEST POINTS

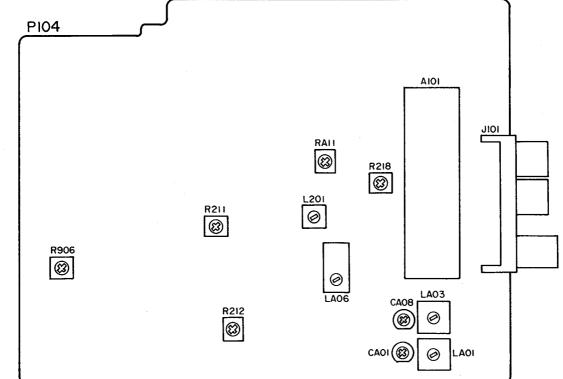


ALIGNMENT AND TEST POINTS







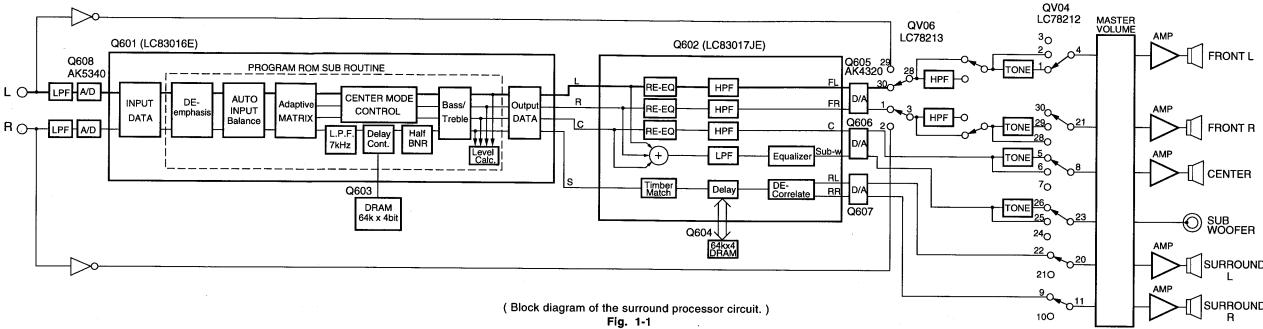


CIRCUIT DESCRIPTION

1. SURROUND CIRCUIT

This model incorporates a surround processor circuit that provides 6 types of the surround sound. Fig. 1-1 is a block diagram of the surround processor circuit.

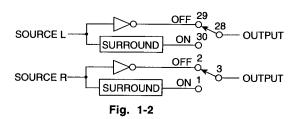
The microprocessor transfers the data to the parameter control (Serial data, Serial clock, Request Ready) to operate the circuits in each mode.



(1) Stereo

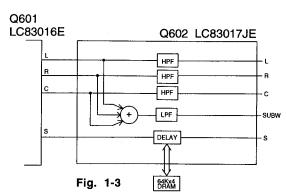
Set to this mode to listen to ordinary stereo sound. The rear L/R and center outputs will be muted.

Q706 LC78213



(2) THX Cinema

The IC Q602 (LC83017E) is a THX Cinema decoder IC. IC Q602 (LC83017E) divides the 4 channel signals (Left, Right, Center and Surround) sourcing from IC Q601 (LC83016E) into 6 channel signals (Left, Right, Center, Surround Left, Surround Right and Sub Woofer).



(3) Dolby pro logic

Q601 (LC8316E) is a Dolby pro logic decoder IC. When an audio signal recorded using the Dolby pro logic system is sent to this IC, the left, right, center and surround components are separated. The surround signal component is delayed by the digital delay circuit by 15-30 mS and is sent to the modified B-type decoder Q601 where noise reduction processing is performed.

(4) Movie, 3CH Logic Hall, Matrix

The Movie mode provides the feeling of presence you get from a 35-mm movie in a movie theater. 3CH Logic mode is used to improve the sound field center by applying directivity enhancement provided by the Dolby Pro Logic Surround decoder.

Hall mode provides a sound-field effect of mediumsized circular hall with rich reverberations.

Matrix mode is effective for playing sports broadcasts or outdoor live concerts. It provides a surround mode with a wide surround effect.

All the connections of the circuits are the same in these modes. Q601, controlled by the microprocessor, processes the audio signals to produce various sound effects and creates surround components to use them as signals to drive the surround channel.

2. CENTER MODE

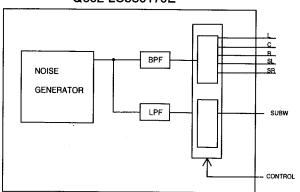
With Dolby pro logic, three center modes depend on the use of a center speaker as follows:

NORMAL	: Bass frequencies are sent only to the Left and Right Front channels. Select this mode when the Center Speaker is smaller than the Left and Right speakers.
WIDE	: Bass frequencies are sent to the Left, Center and Right speakers. Select this mode when the Center speaker is approximately the same size as the Left and Right speakers.
PHANTOM	: Center channel information is sent to the Left and Right speakers. Select this mode when you do not have a center channel speaker.

3. TEST TONE GENERATOR

The test tone generator generates a test tone (noise) to check the balance of sound output from each speaker in the THX CINEMA MODE, (This circuit is produced under license of Lucastilm Ltd.) and the Dolby pro logic mode. (This circuit is produced under license of the Dolby Laboratories Licensing Corp.)

Q602 LC83017JE



(Flow of noise signals within the system.)

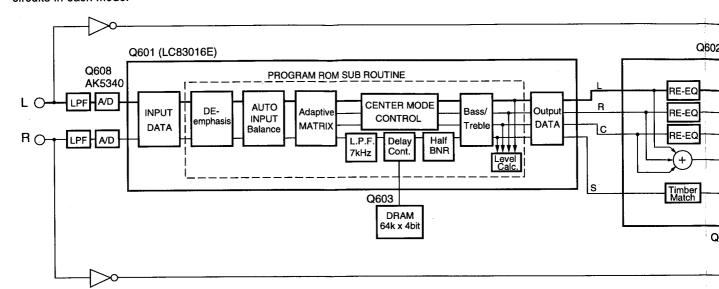
Fig. 3

CIRCUIT DESCRIPTION

1. SURROUND CIRCUIT

This model incorporates a surround processor circuit that provides 6 types of the surround sound. Fig. 1-1 is a block diagram of the surround processor circuit.

The microprocessor transfers the data to the parameter control (Serial data, Serial clock, Request Ready) to operate the circuits in each mode.



(Block diagram of the surround prod

Fig. 1-1

(1) Stereo

Set to this mode to listen to ordinary stereo sound. The rear L/R and center outputs will be muted.

Q706 LC78213

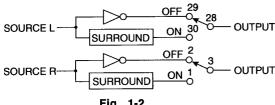
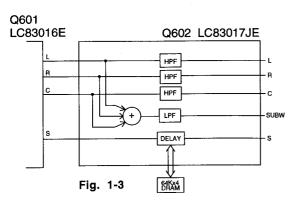


Fig. 1-2

(2) THX Cinema

The IC Q602 (LC83017E) is a THX Cinema decoder IC. IC Q602 (LC83017E) divides the 4 channel signals (Left, Right, Center and Surround) sourcing from IC Q601 (LC83016E) into 6 channel signals (Left, Right, Center, Surround Left, Surround Right and Sub Woofer).



(3) Dolby pro logic

Q601 (LC8316E) is a Dolby pro logic decoder IC. When an audio signal recorded using the Dolby pro logic system is sent to this IC, the left, right, center and surround components are separated. The surround signal component is delayed by the digital delay circuit by 15-30 mS and is sent to the modified B-type decoder Q601 where noise reduction processing is performed.

(4) Movie, 3CH Logic Hall, Matrix

The Movie mode provides the feeling of presence you get from a 35-mm movie in a movie theater. 3CH Logic mode is used to improve the sound field center by applying directivity enhancement provided by the Dolby Pro Logic Surround decoder.

Hall mode provides a sound-field effect of mediumsized circular hall with rich reverberations.

Matrix mode is effective for playing sports broadcasts or outdoor live concerts. It provides a surround mode with a wide surround effect.

All the connections of the circuits are the same in these modes. Q601, controlled by the microprocessor, processes the audio signals to produce various sound effects and creates surround components to use them as signals to drive the surround channel.

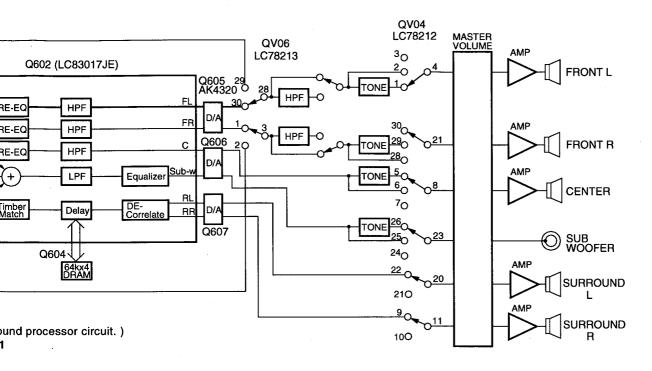
2. CEN

With Do use of a

NORM

WIDE

PHA



2. CENTER MODE

With Dolby pro logic, three center modes depend on the use of a center speaker as follows:

NORMAL	: Bass frequencies are sent only to the Left and Right Front channels. Select this mode when the Center Speaker is smaller than the Left and Right speakers.
WIDE	: Bass frequencies are sent to the Left, Center and Right speakers. Select this mode when the Center speaker is approximately the same size as the Left and Right speakers.
PHANTOM	: Center channel information is sent to the Left and Right speakers. Select this mode when you do not have a center channel speaker.

3. TEST TONE GENERATOR

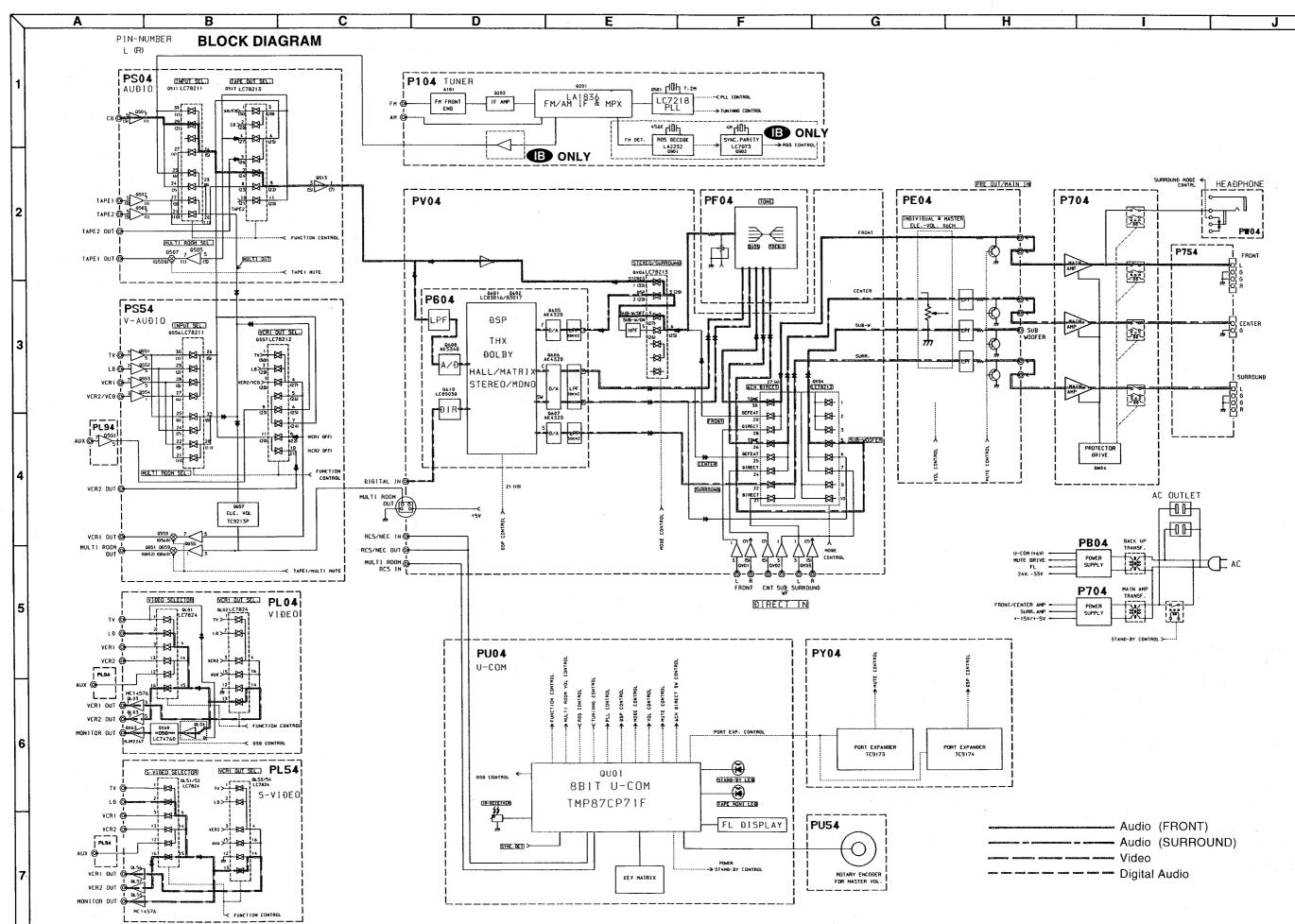
The test tone generator generates a test tone (noise) to check the balance of sound output from each speaker in the THX CINEMA MODE, (This circuit is produced under license of Lucasfilm Ltd.) and the Dolby pro logic mode. (This circuit is produced under license of the Dolby Laboratories Licensing Corp.)

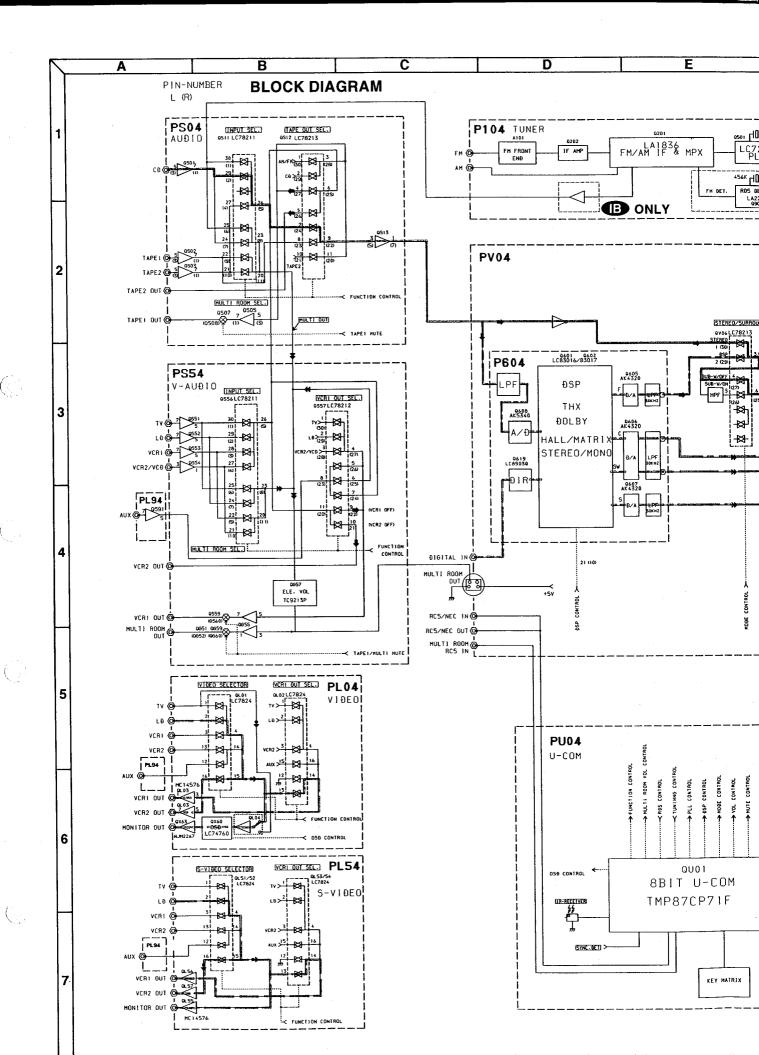
Q602 LC83017JE NOISE GENERATOR LPF SUBW

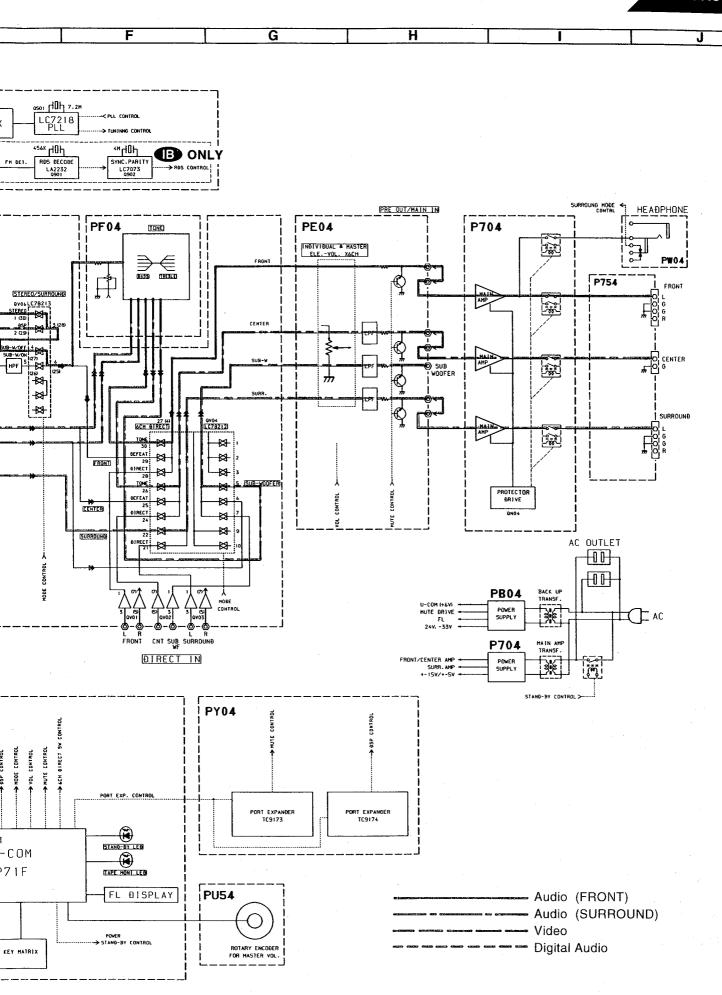
CONTROL

(Flow of noise signals within the system.)

Fig. 3

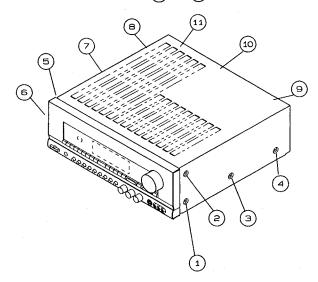




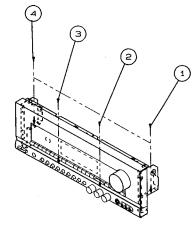


DISASSEMBLY PROCEDURES

1. Removing the top Cover
Remove the screws (1) ~ (11)



2. Removing the front panel Remove the screws \bigcirc \bigcirc \bigcirc



MAIN PCB BLOCK (P704)

- 1. Remove all of the screws on REAR PANEL. (900G)
- 2. Remove the REAR PANEL.
- 3. Remove the SPEAKER TERMINAL PCB. (P754)
- 4. Remove the screw x4 for MAIN PCB mounting.
- Remove the screw x2 for both sides GIRD PCB of main heatsink.
- 6. Remove the both sides GIRD PCB.
- 7. Remove the screw x4 for MAIN PCB BLOCK mounting.
- 8. Remove the MAIN PCB BLOCK.

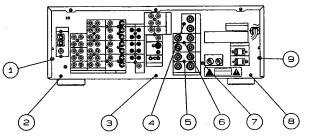
POWER SUPPLY PCB (PB04)

- 1. Remove the screw x2 for TRANSF mounting.
- Remove the screw x2 for POWER SUPPLY PCB mounting.
- 3. Remove the POWER SUPPLY PCB.

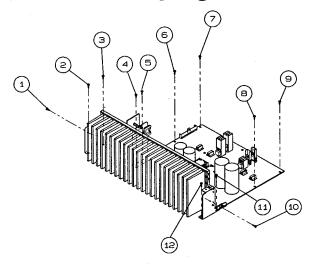
MAIN VOL PCB (PU54)

- 1. Remove the MAIN VOL KNOB. (035B)
- 2. Remove the MAIN VOL NUT.
- 3. Pull out the MAIN VOL PCB.

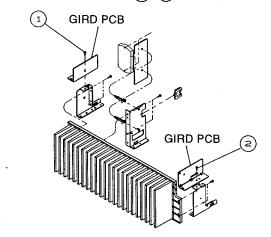
3. Removing the rear panel Remove the screws 1 ~ 9



4. Removing the main PCB Block Remove the screws (1) ~ (12)



5. Removing the shield plate Remove the screws (1) (2)



TONE VOL PCB (PF04)

- 1. Remove the three TONE VOL KNOBS. (036B)
- 2. Remove the three TONE VOL NUTS.
- 3. Pull out the TONE VOL PCB.

FRONT FUNCTION PCB (PU04)

- Remove the screw x4 for FRONT PANEL ASSY mounting.
- 2. Lay down the FRONT PANEL ASSY.
- 3. Remove the screw x16 for FRONT FUNCTION PCB.
- 4. Remove the FRONT FUNCTION PCB.

GENERAL UNIT PARTS LIST

LABEL BIS

SUPPORT

CLAMPER

HEATSINK

HEATSINK

HEATSINK

HEATSINK HEATSINK

HEATSINK

SPACER

SUPPORT

CONTACTOR

BUSHING (B)

HEATSINK, MAIN

BRACKET, HEAT SINK (L)

BRACKET, HEAT SINK (R)

BRACKET, HEATSINK CENTER

RETAINER, MAIN PCB

920G

001L

005L

009L

013L

015L

017L

020L

001K

002K

003K

004K

005K

007K

011K

012K

014K

061K

95109111D0

264J267010

264J160020

264J160030

261J104010

264J160060

090J101010

287S005010

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309V267010

309V267010

260J123010

152J118030

306V259030

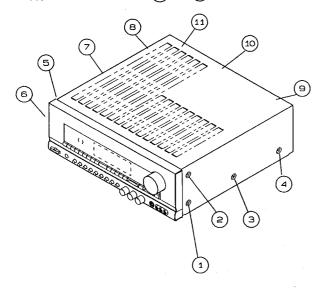
415T101010

GENE	ERAL UNII	PARISLIST					
Ref. No.	Part. No.	<u>Description</u>	<u>Q'TY</u>	Ref. No.	Part. No.	Description	Q'TY
001B	260J248020	FRONT PANEL IB	1	▲ L001	TS60513020	POWER TRANSF. 230V IB	1
001B	260J248010	FRONT PANEL BE	1	▲ L001	TS60513010	POWER TRANSF. 120V BK	1
005B	260J105010	CHASSIS, FRONT	1	L002	FC50380010	FERRITE CORE IB	1
008B	260J158010	WINDOW	1	Y001	YQ01000080	SHORTING PLUG	1
010B	260J270010	BUTTON, FUNCTION	1	Y002	YQ01000080	SHORTING PLUG	1
013B	260J270510	BUTTON KIT, POWER	1	Y003	YQ01000080	SHORTING PLUG	1
014B	260J270040	BUTTON, POWER	1	Y004	YQ01000080	SHORTING PLUG	1
015B	260J355020	LENS, POWER	1	Y005	YQ01000080	SHORTING PLUG	1
017B	260J270020	BUTTON, MODE (B)	1	▲ W001	YC01800790	A.C POWER CORD IB	1
017B	260J270120	BUTTON, MODE BK	1	▲ W001	YC01800780	A.C POWER CORD BK	1
019B	183J271020	HOLDER, FL	1				
020B	056J122010	STICKER, FL	1	5110	51100306M0	B. H. M SCREW 5110 ø3x6 (M)	5
021B	4220005040	CLAMPER	1	5110	51100308A0	B. H. M SCREW 5110 ø3x8 (A)	4
023B	183J010010	SCREW, PHONE PCB	1	5126	51260308M0	B.T.SCREW(W/W) 5126 ø3x8 (M)	8
025B	264J160040	BRACKET, LEFT	1	5126	51260308U0	B.T.SCREW(W/W) 5126 ø3x8 (U)	11
027B	264J160050	BRACKET, RIGHT	1	5128	51280308M0	B. H. TAP. SCREW 5128 ø3x8 (M)	99
035B	063J154180	KNOB, MAIN VOL	1	5128	51280308U0	B. H. TAP. SCREW 5128 ø3x8 (U)	3
036B	042J154020	KNOB, TONE VOL	3	5128	51280325B0	B. H. TAP. SCREW 5128 ø3x25 (B)	2
001D	264J257110	LID, TOP COVER	1	5128	51280410U0	B. H. TAP. SCREW 5128 ø4x10 (U)	1
001G	264J105500	CHASSIS ASSEMBLY, MAIN	1	5128	51480310A0	F. WASHER SCREW 5148 ø3x10(A)	9
002G	264J105010	CHASSIS, MAIN	1.	5128	51480315M0	F. WASHER SCREW 5148 ø3x15(M)	2
003G	030J114010	STOPPER	1	5128	52040408M0	H. HEAD BOLT 5204 ø4x8 (M)	4
006G	227J056010	BUFFER	4				
007G	183J057010	LEG, FRONT	2				
008G	183J057110	LEG, REAR	2				
010G	264J160010	BRACKET, TRANSF.	1				
013G	260J271010	HOLDER, SUB TRANSF.	1				
016G	2218271020	HOLDER, PCB	7				
017G	054J101020	SUPPORT, MAIN PCB	3				
020G	137J861050	LABEL, FUSE BK	1				
022G	093J861010	LABEL, FUSE BK	1				
030G	136J101020	SUPPORT	1				
900G	260J250020	REAR PANEL®	1				
900G	260J250010	REAR PANEL BK	1				
910G	450H259010	BUSHING, AC CODE	1				
915G	260J861010	LABEL	. 1				

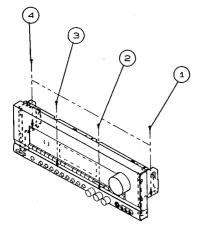
12

DISASSEMBLY PROCEDURES

1. Removing the top Cover Remove the screws (1) ~ (1)



2. Removing the front panel Remove the screws 1 ~ 4



MAIN PCB BLOCK (P704)

- 1. Remove all of the screws on REAR PANEL. (900G)
- 2. Remove the REAR PANEL.
- 3. Remove the SPEAKER TERMINAL PCB. (P754)
- 4. Remove the screw x4 for MAIN PCB mounting.
- Remove the screw x2 for both sides GIRD PCB of main heatsink.
- 6. Remove the both sides GIRD PCB.
- 7. Remove the screw x4 for MAIN PCB BLOCK mounting.
- 8. Remove the MAIN PCB BLOCK.

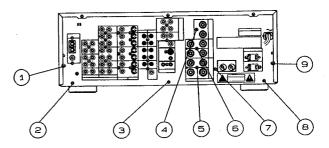
POWER SUPPLY PCB (PB04)

- 1. Remove the screw x2 for TRANSF mounting.
- 2. Remove the screw x2 for POWER SUPPLY PCB mounting.
- 3. Remove the POWER SUPPLY PCB.

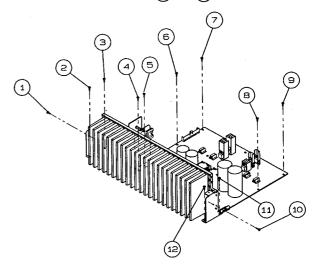
MAIN VOL PCB (PU54)

- 1. Remove the MAIN VOL KNOB. (035B)
- 2. Remove the MAIN VOL NUT.
- 3. Pull out the MAIN VOL PCB.

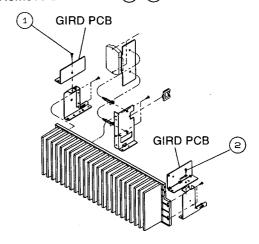
3. Removing the rear panel Remove the screws (1) ~ (9)



4. Removing the main PCB Block Remove the screws 1 ~ (12)



5. Removing the shield plate Remove the screws 1 2



TONE VOL PCB (PF04)

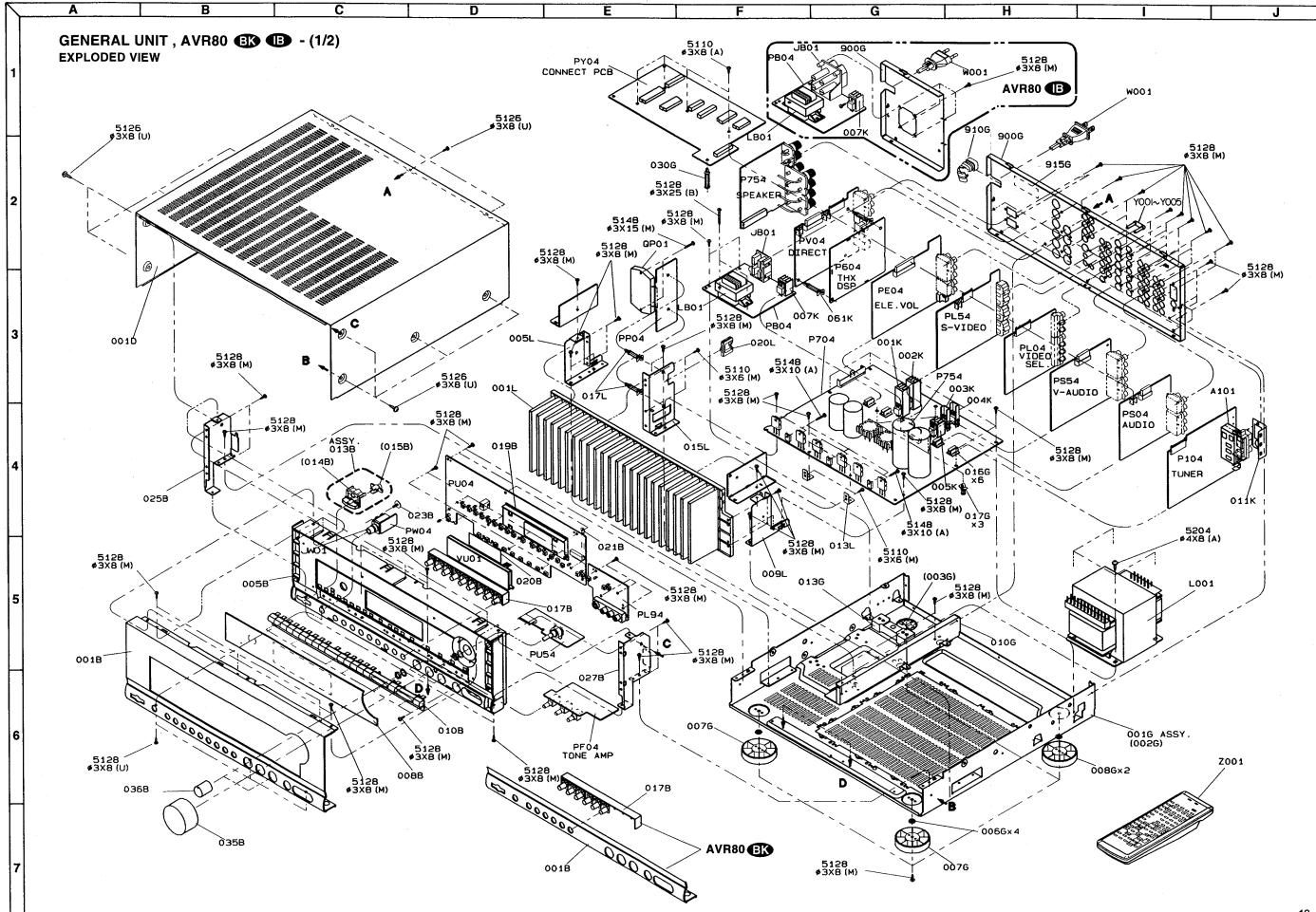
- 1. Remove the three TONE VOL KNOBS. (036B)
- 2. Remove the three TONE VOL NUTS.
- 3. Pull out the TONE VOL PCB.

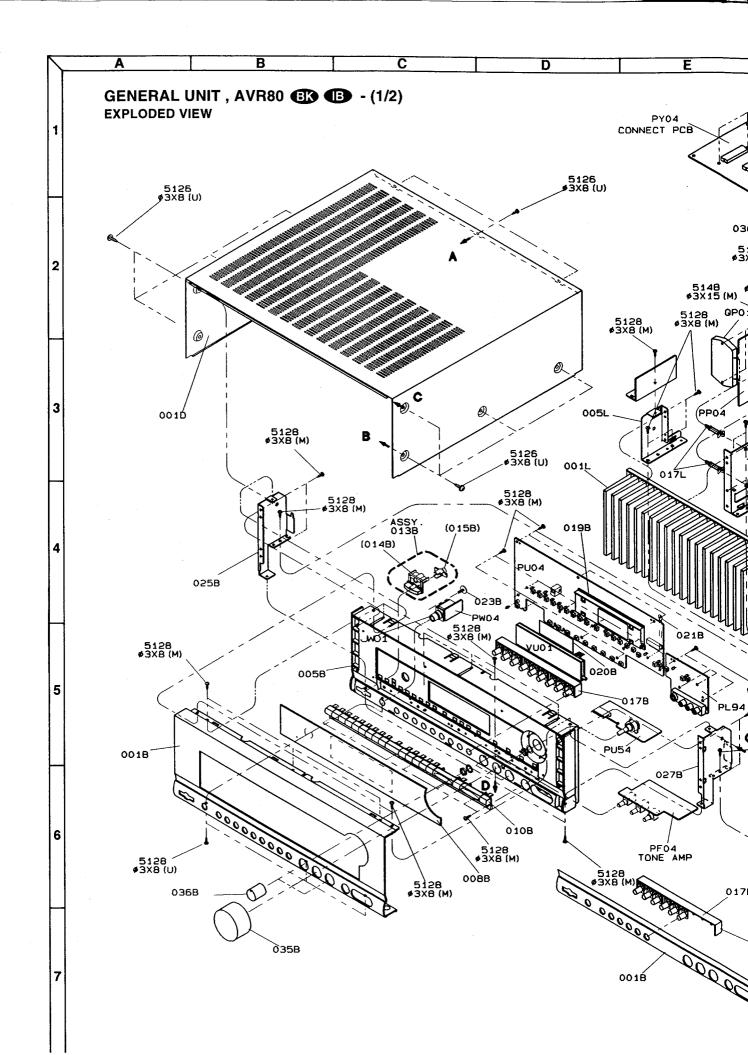
FRONT FUNCTION PCB (PU04)

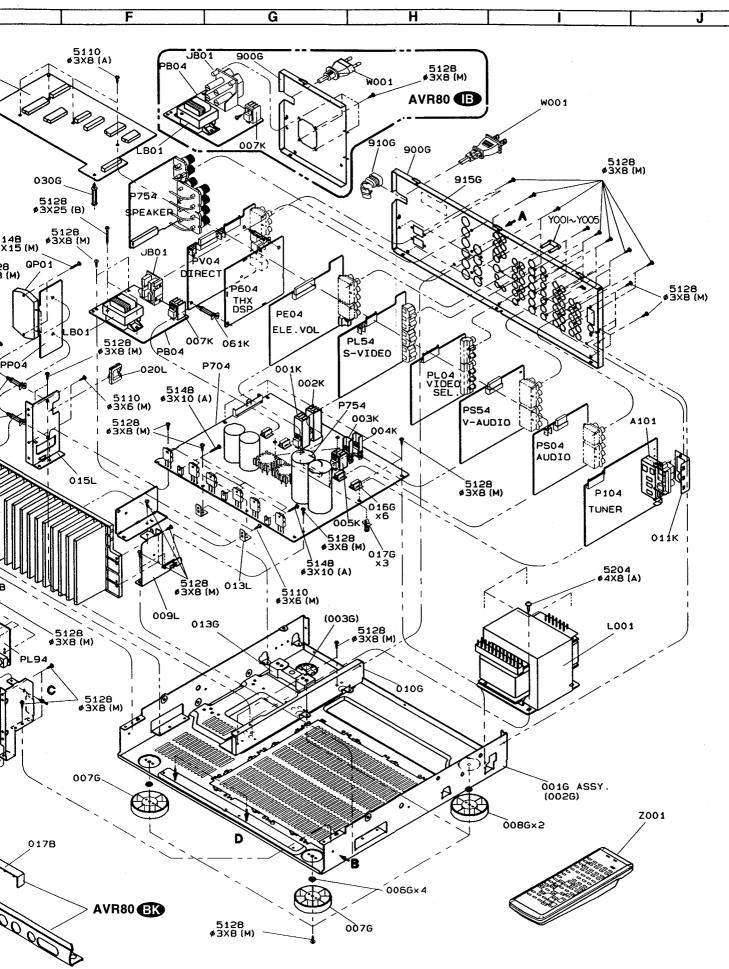
- Remove the screw x4 for FRONT PANEL ASSY mounting.
- 2. Lay down the FRONT PANEL ASSY.
- 3. Remove the screw x16 for FRONT FUNCTION PCB.
- 4. Remove the FRONT FUNCTION PCB.

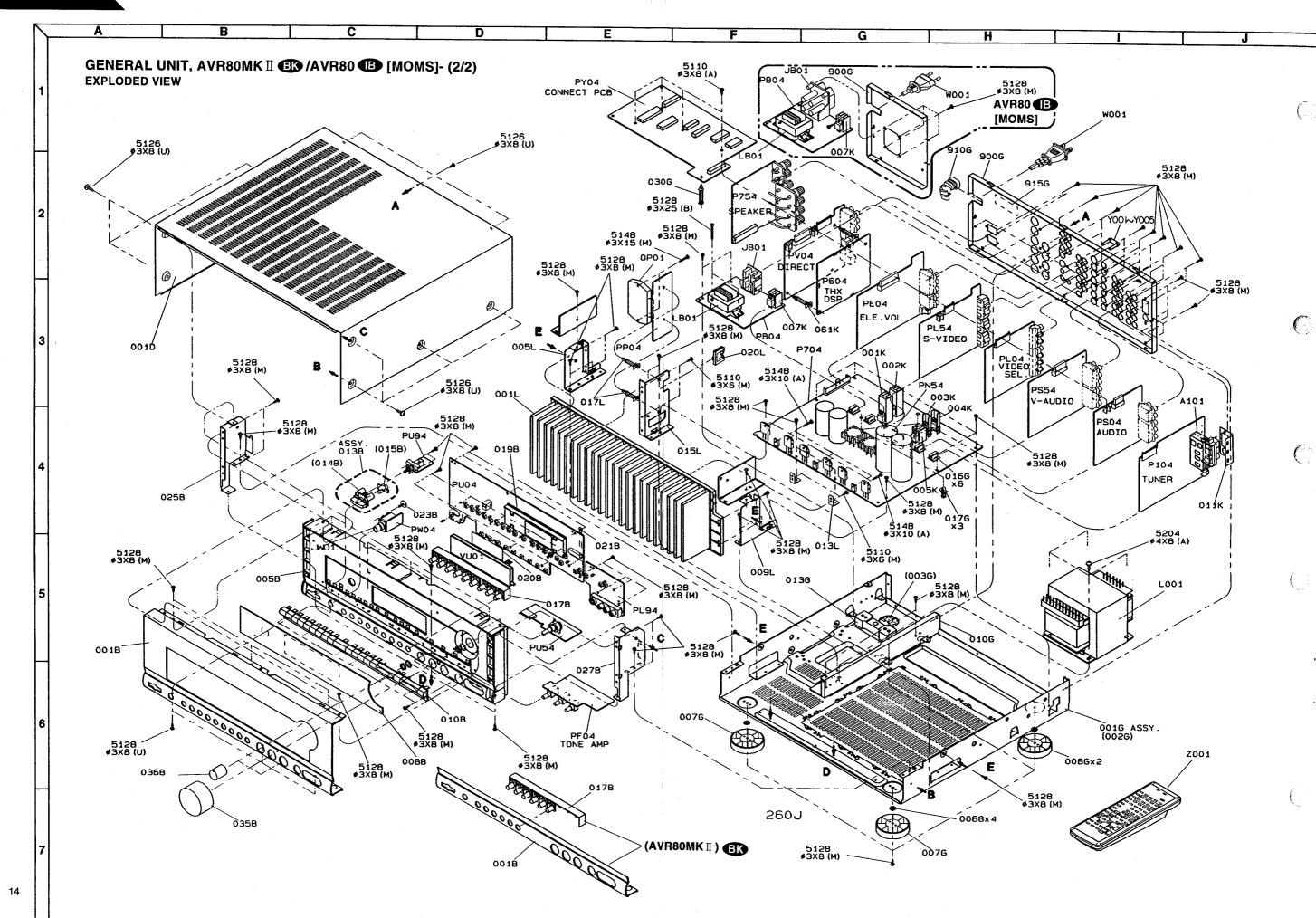
GENERAL UNIT PARTS LIST

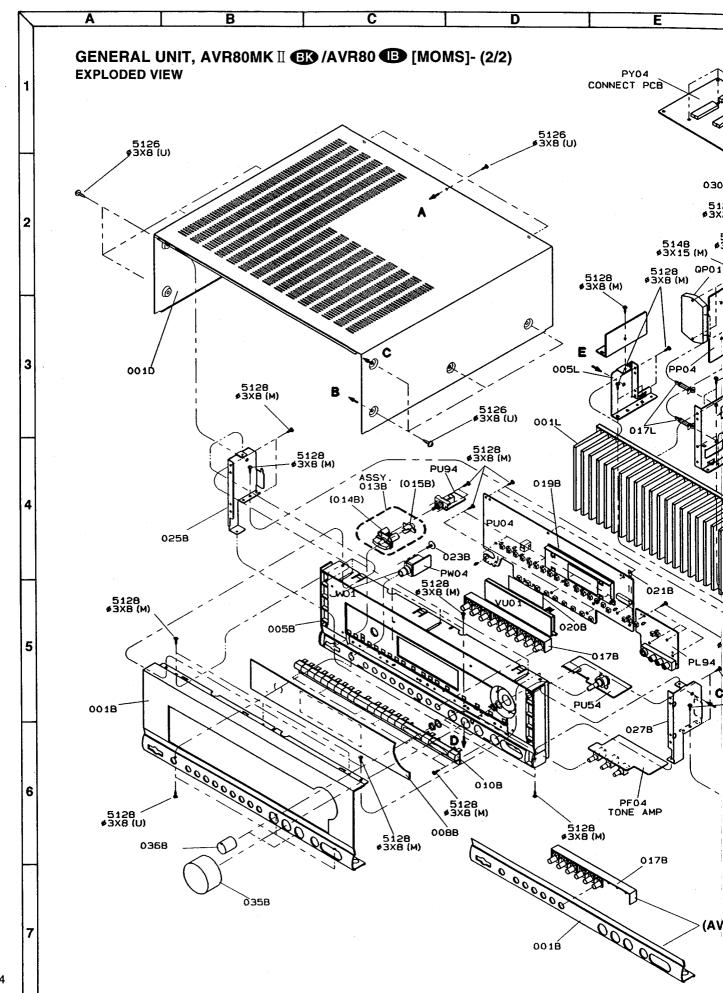
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001B	260J248010	FRONT PANEL BK	1	▲ L001	TS60513010	POWER TRANSF. 120V BK	1
005B	260J105010	CHASSIS, FRONT	1	L002	FC50380010	FERRITE CORE IB	1
008B	260J158010	WINDOW	1	Y001	YQ01000080	SHORTING PLUG	1
010B	260J270010	BUTTON, FUNCTION	1	Y002	YQ01000080	SHORTING PLUG	1
013B	260J270510	BUTTON KIT, POWER	1	Y003	YQ01000080	SHORTING PLUG	1
014B	260J270040	BUTTON, POWER	1	Y004	YQ01000080	SHORTING PLUG	1
015B	260J355020	LENS, POWER	1	Y005	YQ01000080	SHORTING PLUG	1.
017B	260J270020	BUTTON, MODE (B)	1	▲ W001	YC01800790	A.C POWER CORD (B)	1
017B	260J270120	BUTTON, MODE BK	1	▲ W001	YC01800780	A.C POWER CORD BK	1
019B	183J271020	HOLDER, FL	1	=440		D. H. M. CODEW. 54400-0 (M)	_
020B	056J122010	STICKER, FL	1	5110	51100306M0	B. H. M SCREW 5110 ø3x6 (M)	5
021B	4220005040	CLAMPER	1	5110	51100308A0	B. H. M SCREW 5110 ø3x8 (A)	4
023B	183J010010	SCREW, PHONE PCB	1	5126	51260308M0	B.T.SCREW(W/W) 5126 ø3x8 (M)	8 11
025B	264J160040	BRACKET, LEFT	1	5126	51260308U0	B.T.SCREW(W/W) 5126 ø3x8 (U)	99
027B	264J160050	BRACKET, RIGHT	1	5128 5128	51280308M0	B. H. TAP. SCREW 5128 ø3x8 (M) B. H. TAP. SCREW 5128 ø3x8 (U)	3
035B	063J154180	KNOB, MAIN VOL	3		51280308U0		2
036B	042J154020	KNOB, TONE VOL	. 1	5128 5128	51280325B0 51280410U0	B. H. TAP. SCREW 5128 ø3x25 (B) B. H. TAP. SCREW 5128 ø4x10 (U)	1
001D	264J257110 264J105500	LID, TOP COVER CHASSIS ASSEMBLY, MAIN	i	5128	51480310A0	F. WASHER SCREW 5128 64X10 (A)	9
001G 002G	264J105010	CHASSIS, MAIN	i.	5128	51480315M0	F. WASHER SCREW 5148 Ø3x15(M)	2
002G	030J114010	STOPPER	1	5128	52040408M0	H. HEAD BOLT 5204 Ø4x8 (M)	4
006G	227J056010	BUFFER	4	0.20	020101001110	The real boar of the city	•
007G	183J057010	LEG, FRONT	2				
008G	183J057110	LEG, REAR	2				
010G	264J160010	BRACKET, TRANSF.	1				
013G	260J271010	HOLDER, SUB TRANSF.	1				
016G	2218271020	HOLDER, PCB	7				
017G	054J101020	SUPPORT, MAIN PCB	3				
020G	137J861050	LABEL, FUSE BK	1				
022G	093J861010	LABEL, FUSE BK	1				
030G	136J101020	SUPPORT	1				
900G	260J250020	REAR PANEL IB	1				
900G	260J250010	REAR PANEL BK	1				
910G	450H259010	BUSHING, AC CODE	1				
915G	260J861010	LABEL	. 1				
920G	95109111D0	LABEL BK	1				
001L	264J267010	HEATSINK, MAIN	1				
005L	264J160020	BRACKET, HEAT SINK (L)	1				
009L 013L	264J160030 261J104010	BRACKET, HEAT SINK (R) RETAINER, MAIN PCB	2				
015L	264J160060	BRACKET, HEATSINK CENTER	1				
017L	090J101010	SUPPORT	2				
020L	287S005010	CLAMPER	1				
001K	009D267010	HEATSINK	1				
002K	009D267010	HEATSINK	1				
003K	001J267030	HEATSINK	1				
004K	001J267030	HEATSINK	1				
005K	309V267010	HEATSINK	1				
007K	309V267010	HEATSINK	1				•
011K	260J123010	CONTACTOR	1				
012K	152J118030	SPACER	1				
014K	306V259030	BUSHING IB	1				
· 061K	415T101010	SUPPORT	1				

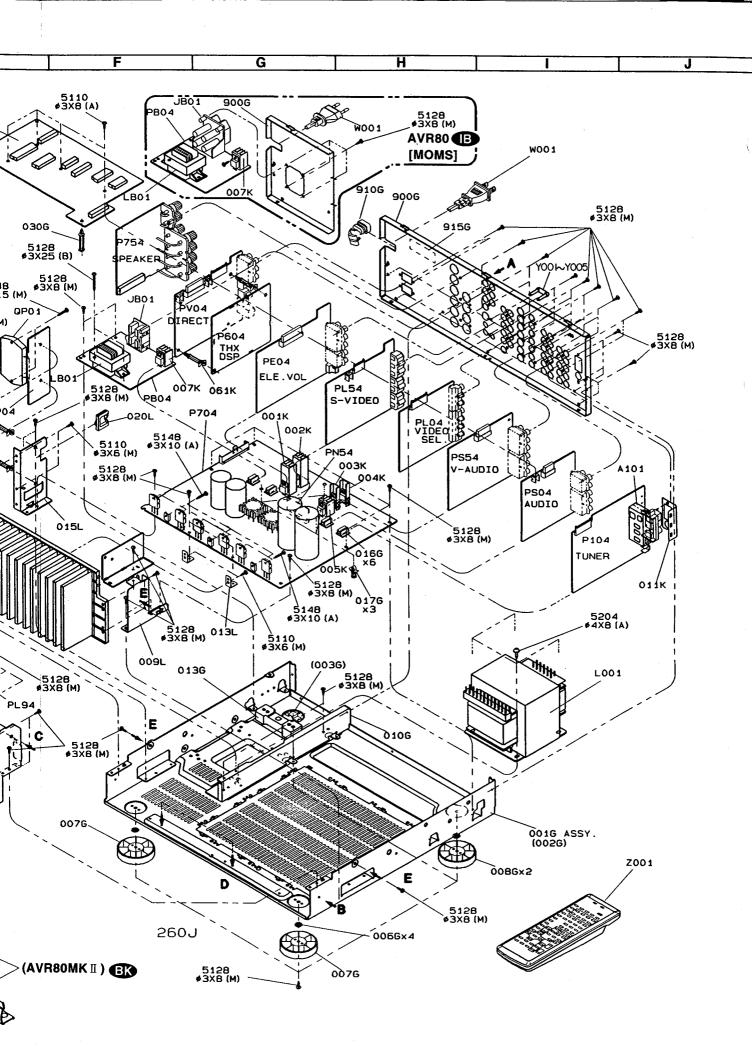








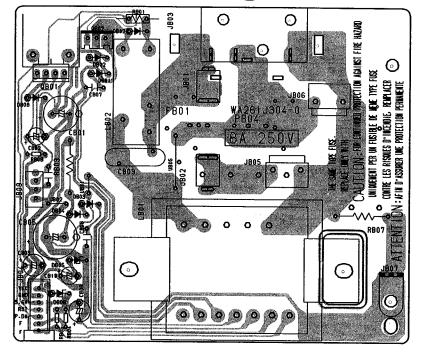




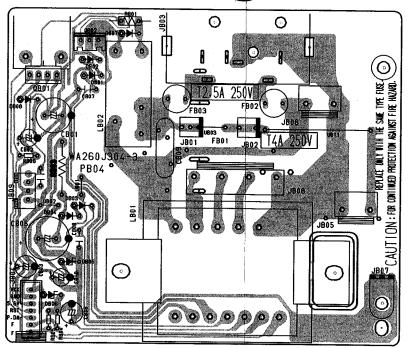
A B C D E F G H I

P.C. BOARDS (1)

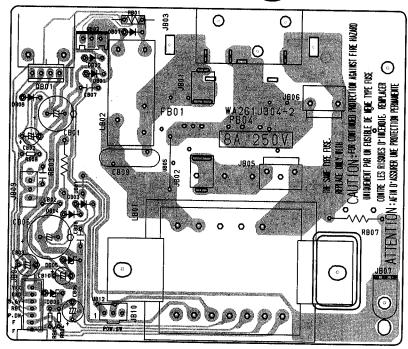
PB04-Back-up P.C. Board , AVR80 (BK) Version



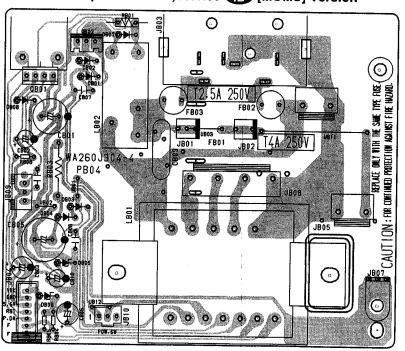
PB04-Back-up P.C. Board , AVR80 (B) Version



PB04-Back-up P.C. Board , AVR80MK II (BK) Version



PB04-Back-up P.C. Board , AVR80 (B) [MOMS] Version

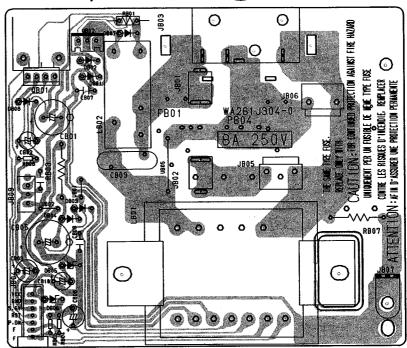


A B C D E

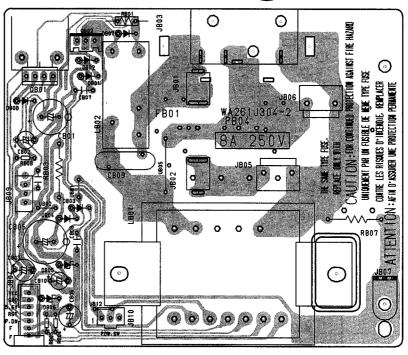
P.C. BOARDS (1)

5

PB04-Back-up P.C. Board , AVR80 BK Version



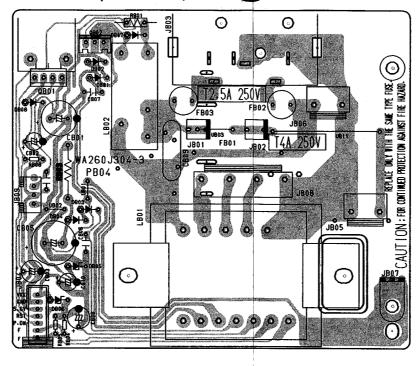
PB04-Back-up P.C. Board , AVR80MK II (BK) Version



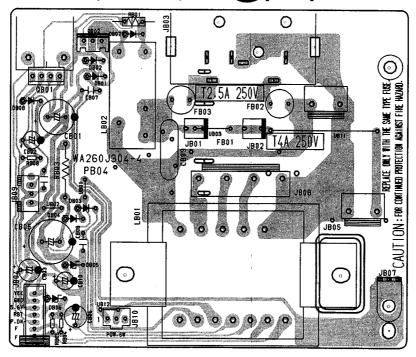
J

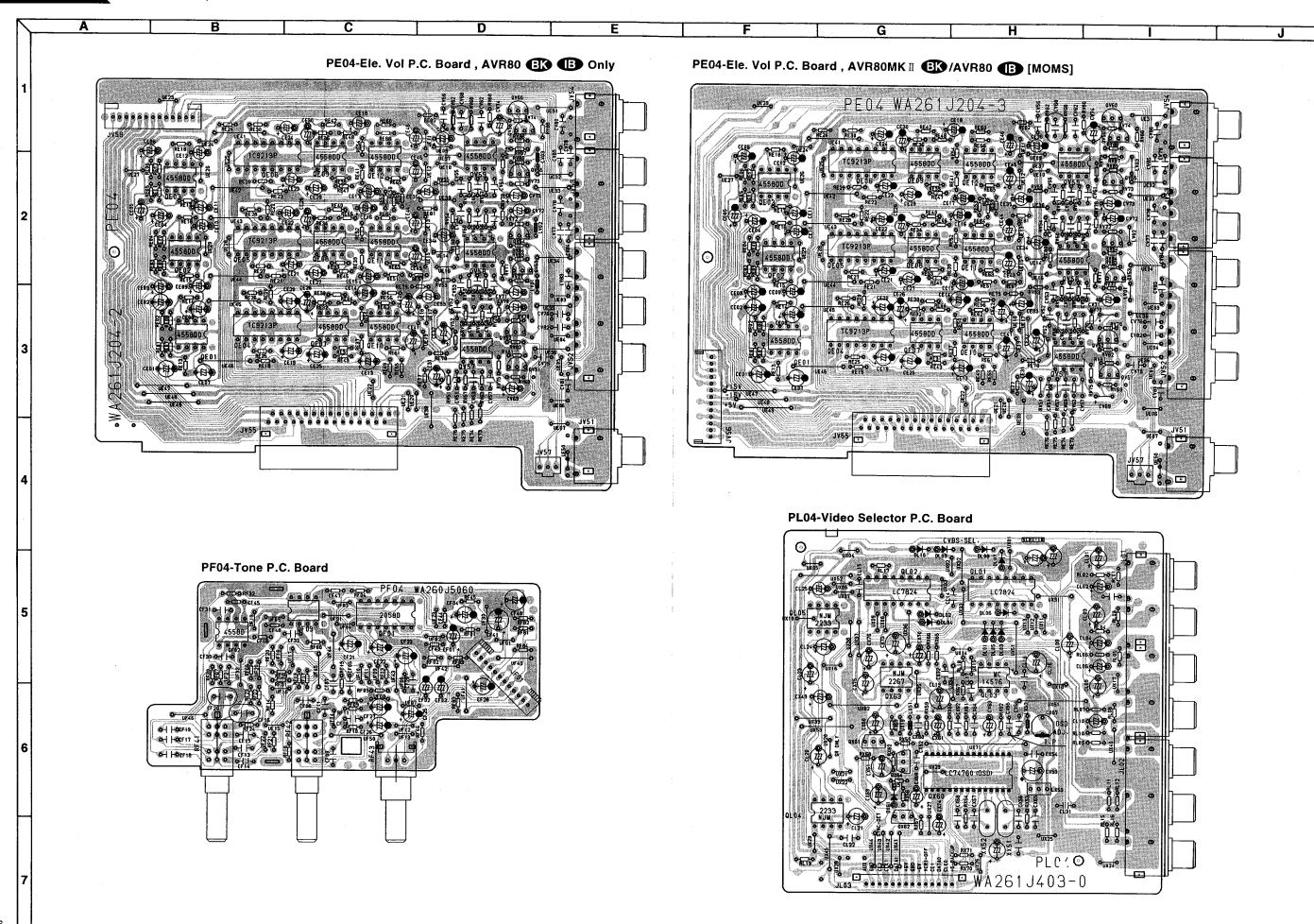
F G H

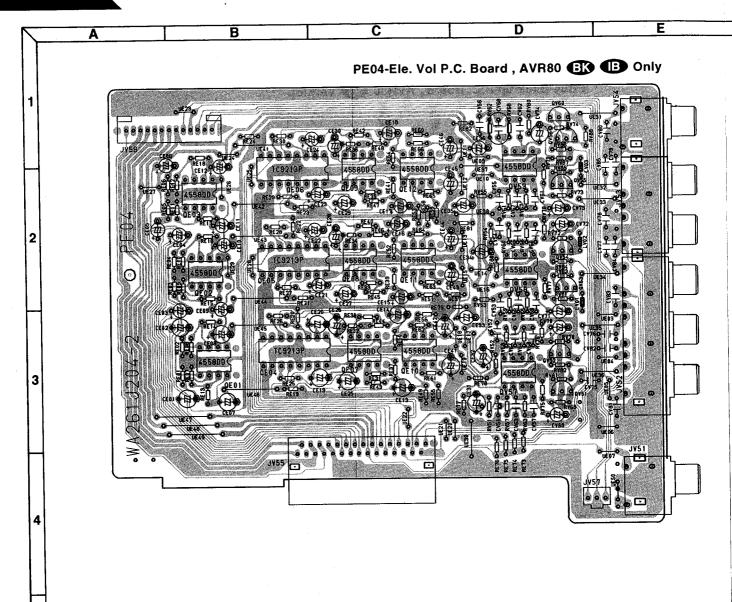
PB04-Back-up P.C. Board , AVR80 (B) Version



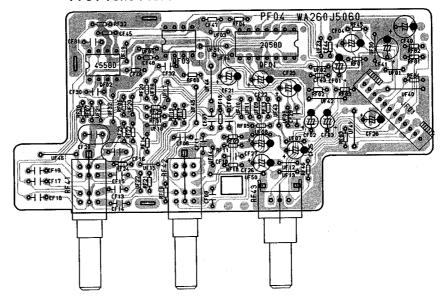
PB04-Back-up P.C. Board , AVR80 (B) [MOMS] Version







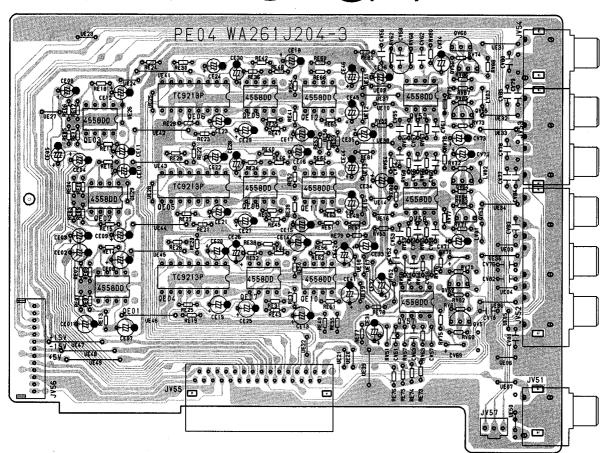
PF04-Tone P.C. Board



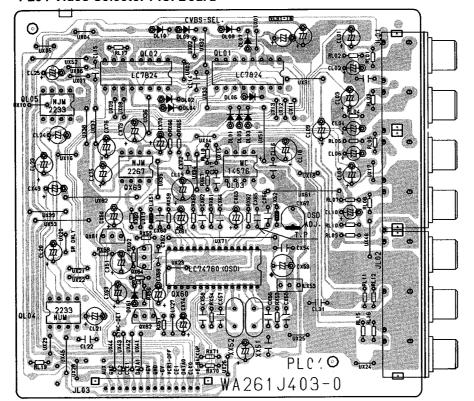
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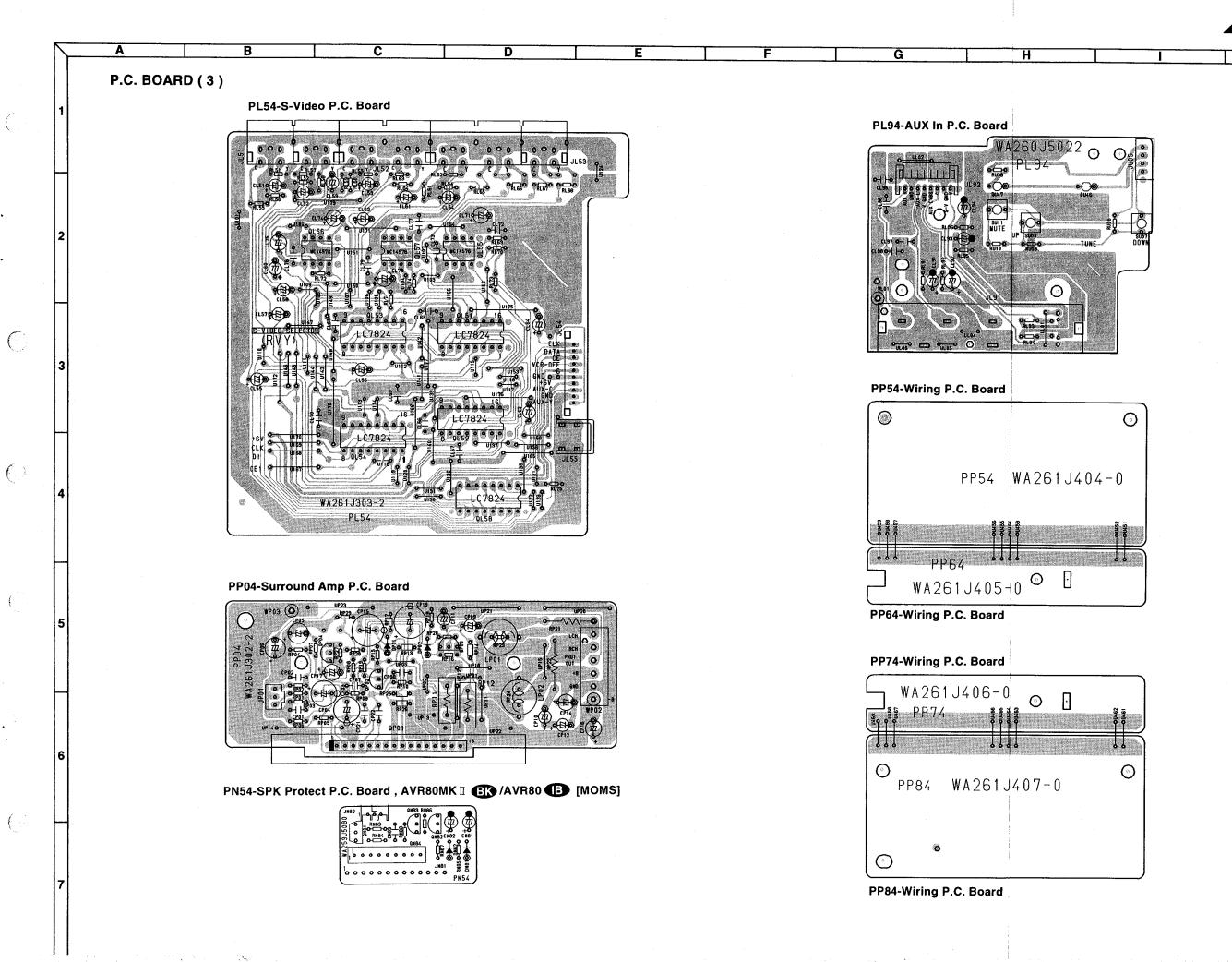
F G H I

PE04-Ele. Vol P.C. Board , AVR80MK II BK /AVR80 B [MOMS]



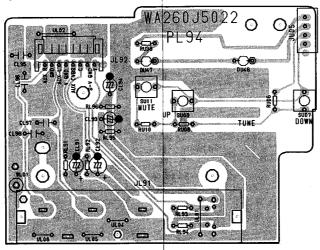
PL04-Video Selector P.C. Board



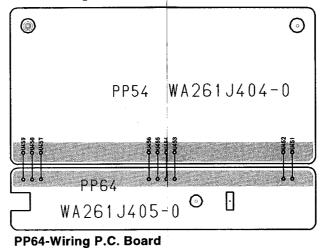


B C P.C. BOARD (3) PL54-S-Video P.C. Board WA261J303-2 PL54 PP04-Surround Amp P.C. Board PN54-SPK Protect P.C. Board , AVR80MK II BK /AVR80 B [MOMS] F G H

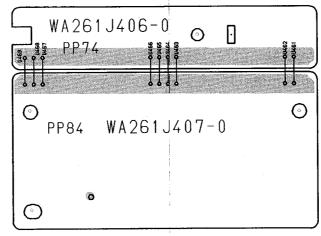
PL94-AUX In P.C. Board



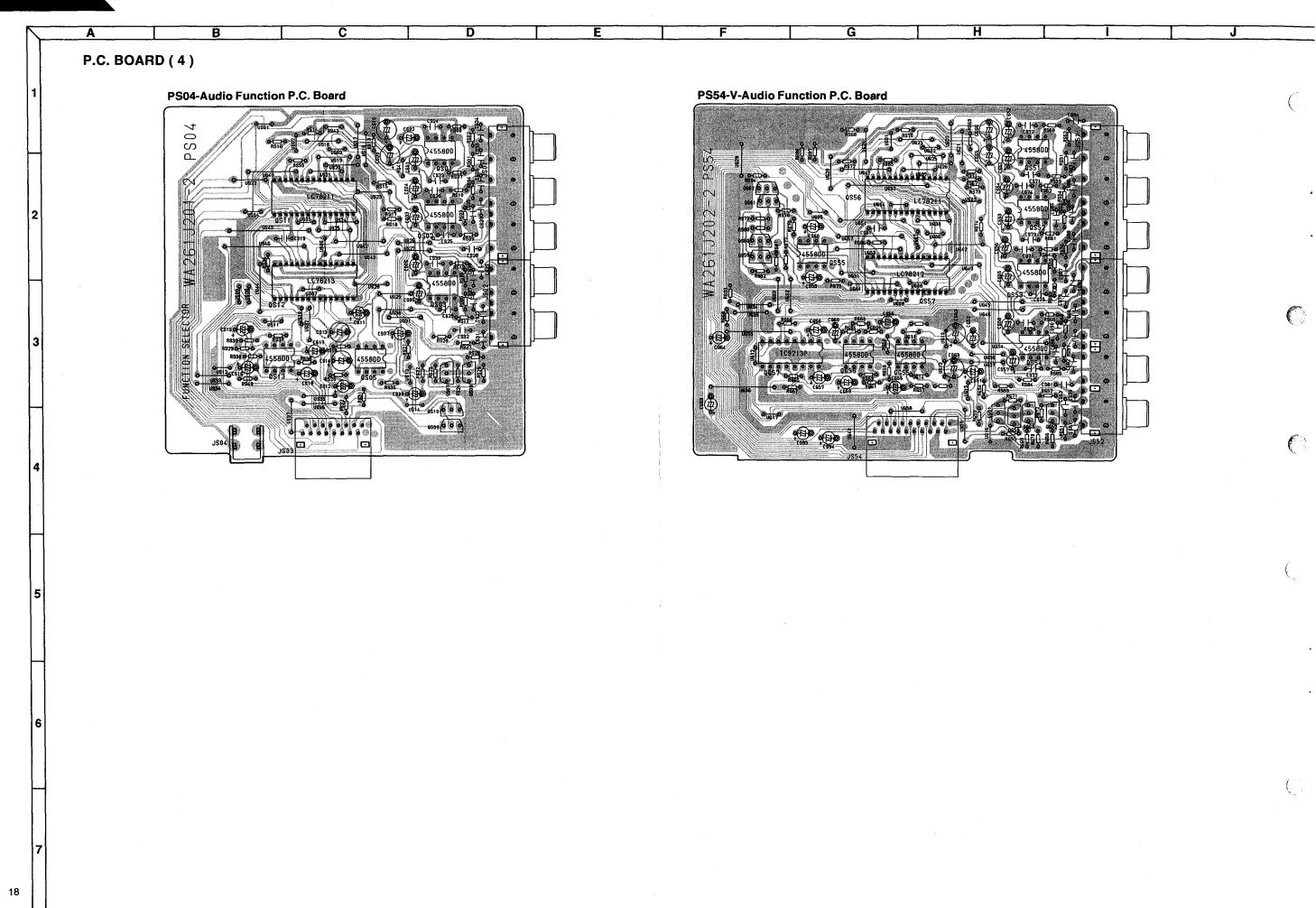
PP54-Wiring P.C. Board

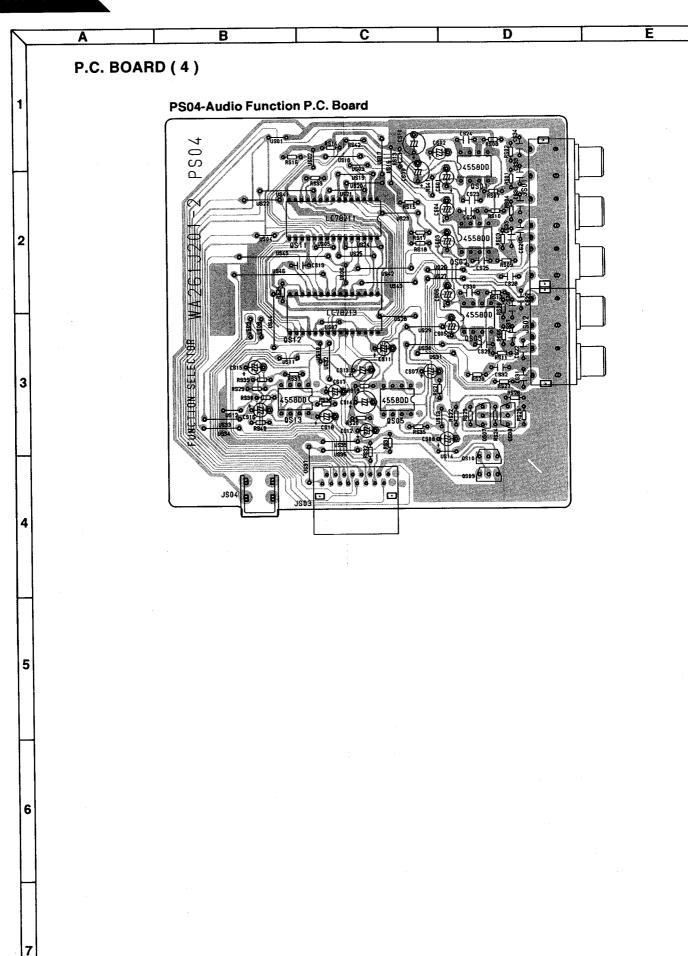


PP74-Wiring P.C. Board



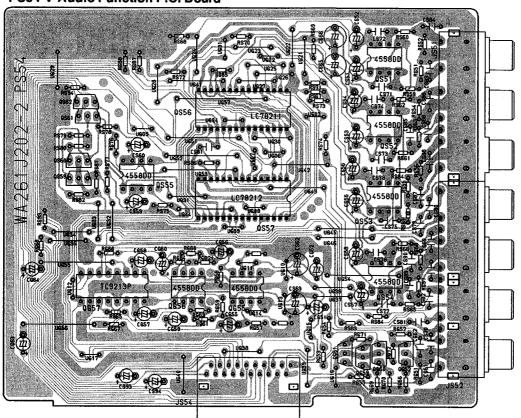
PP84-Wiring P.C. Board

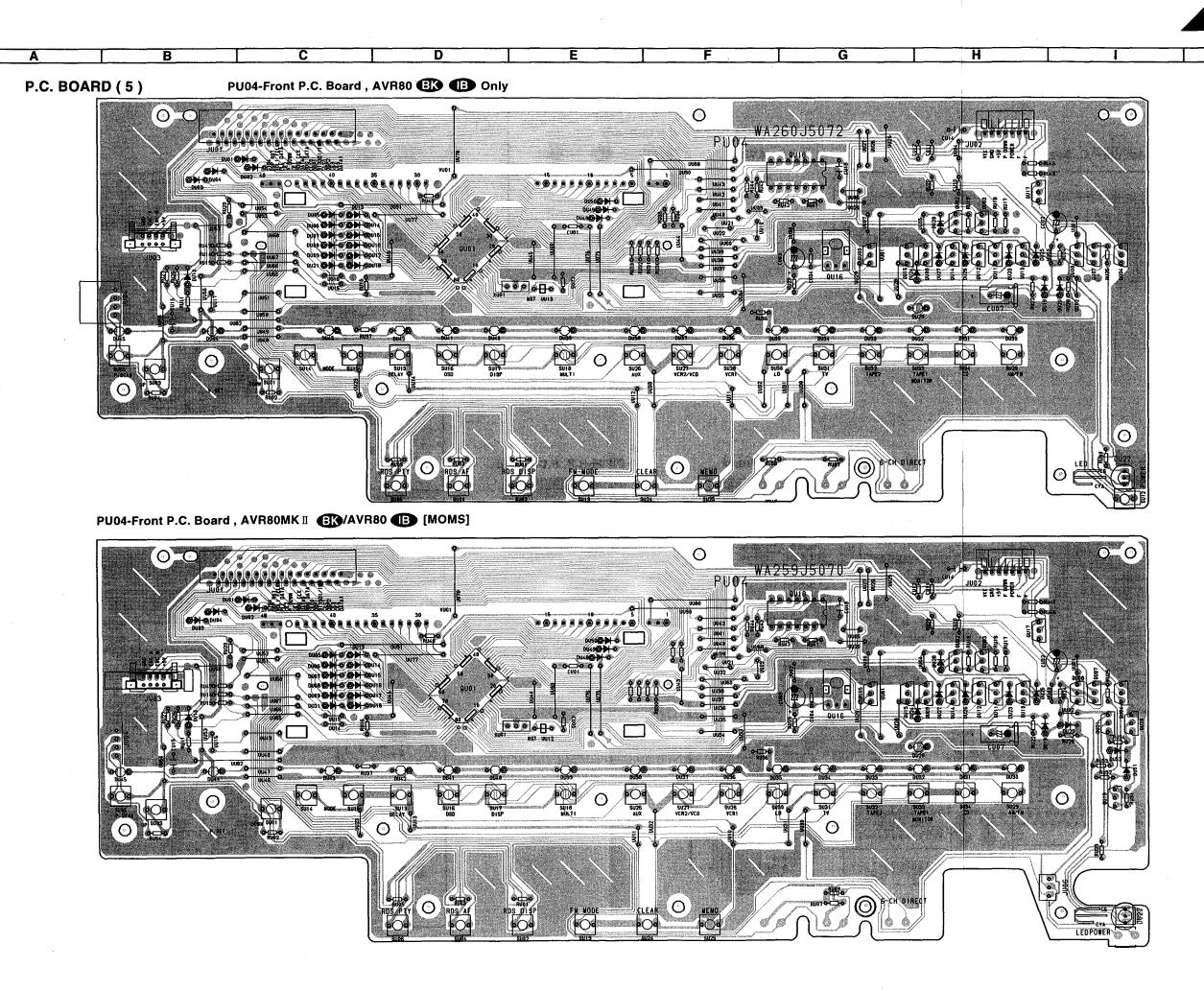


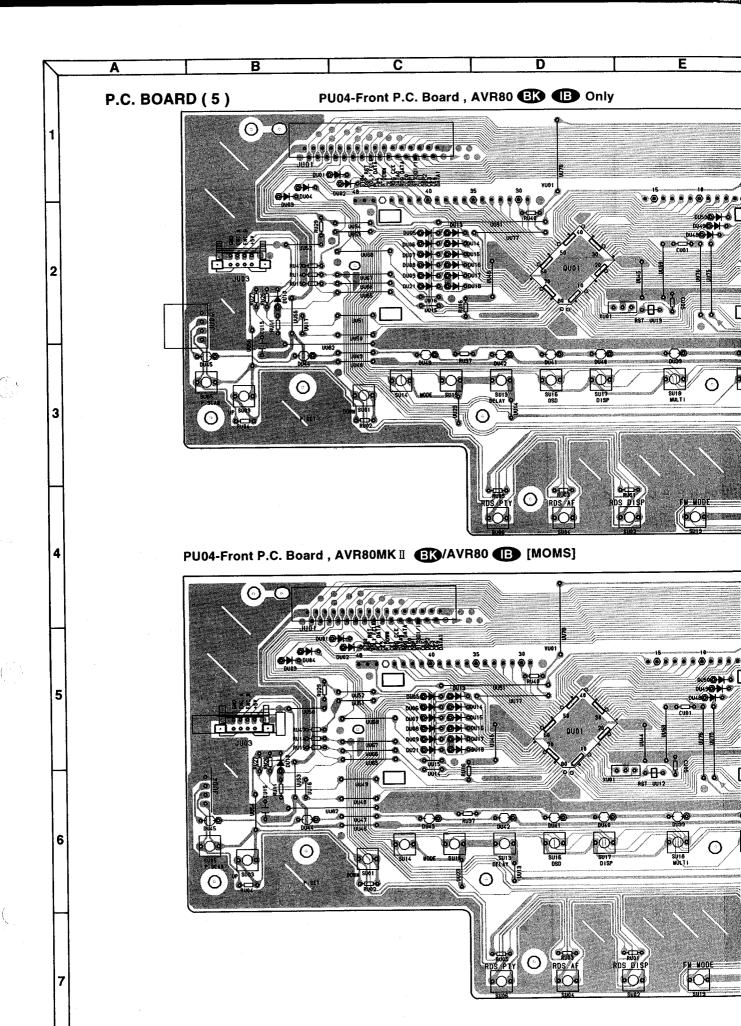


F G H I J

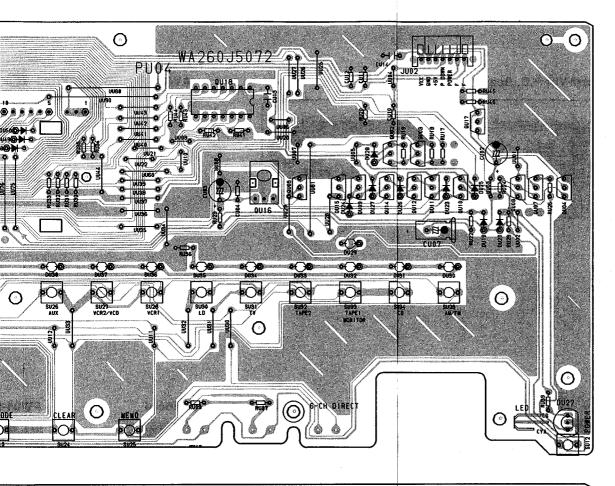
PS54-V-Audio Function P.C. Board





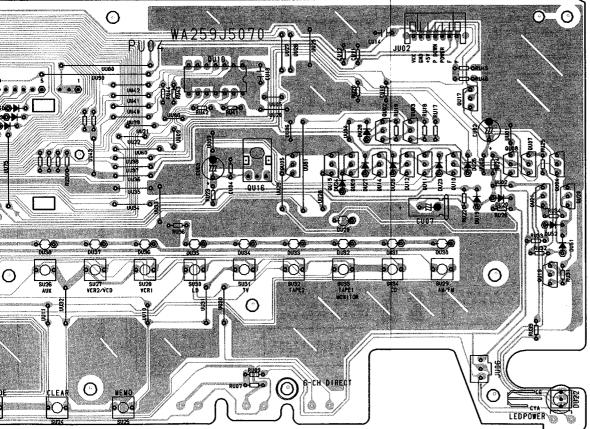


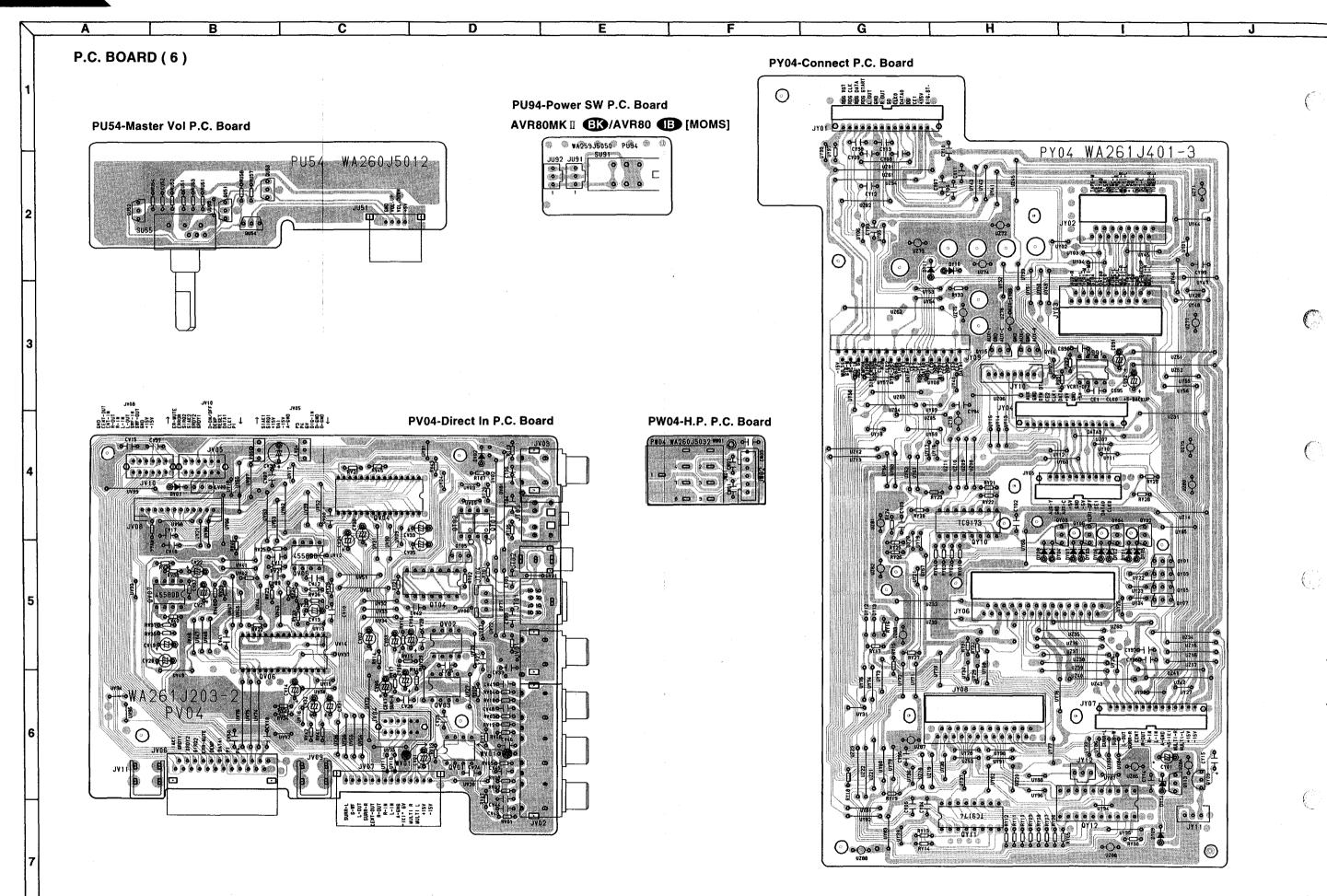
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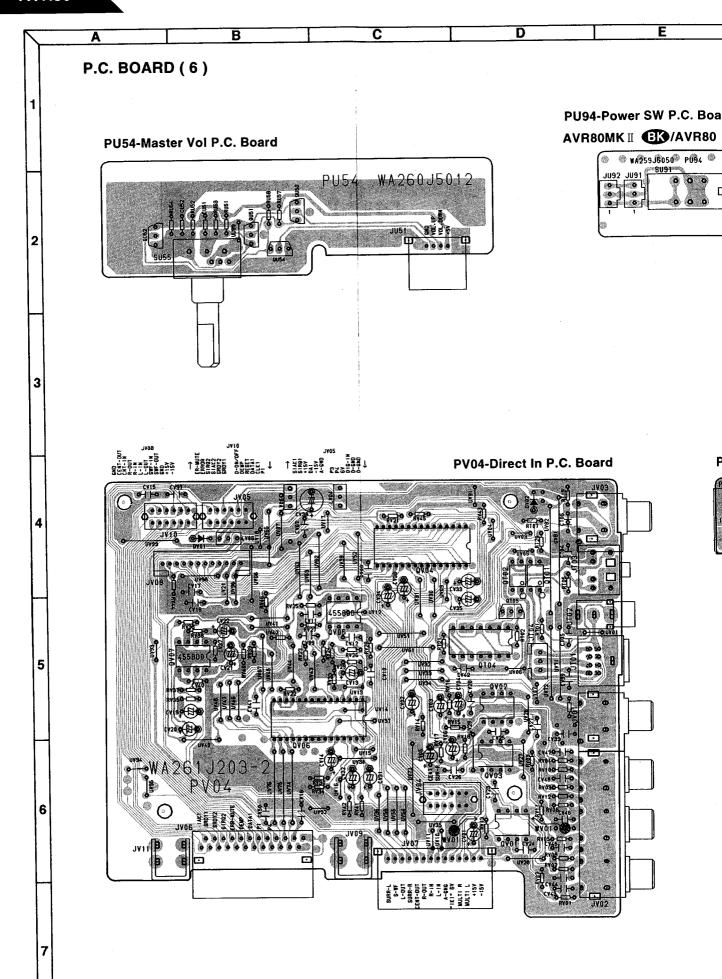


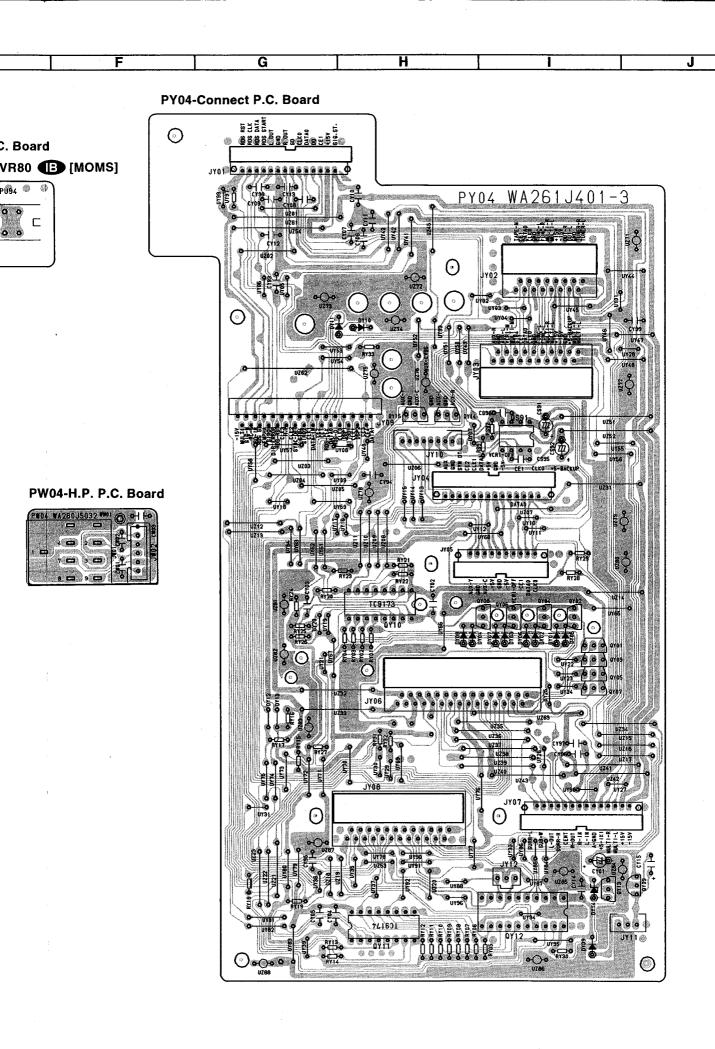
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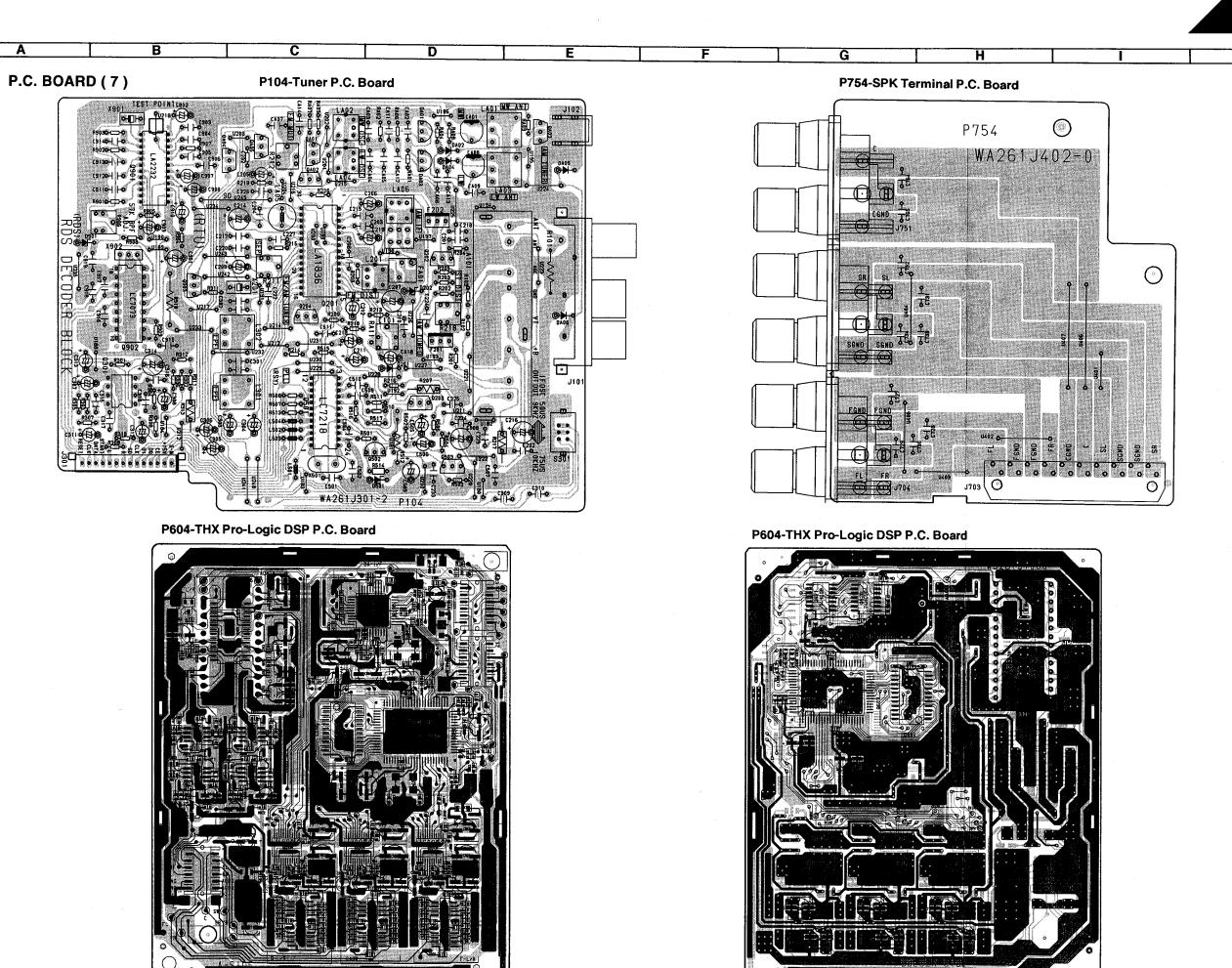
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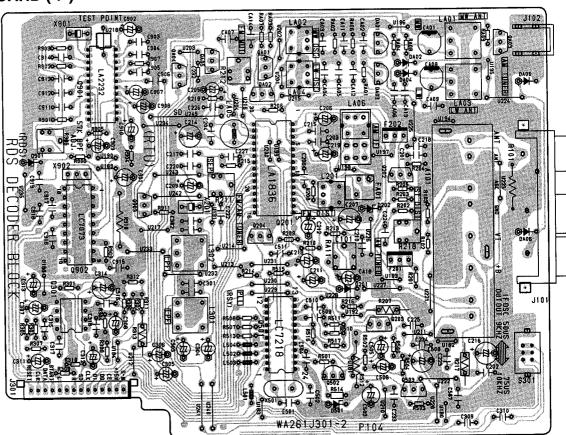




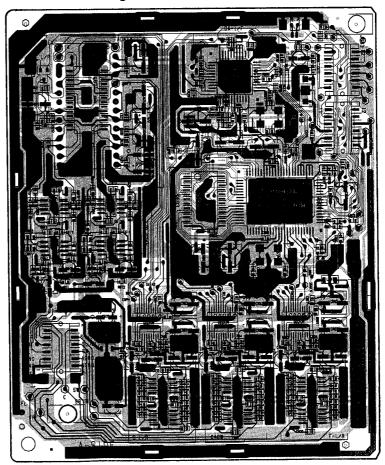
A B C D E

P.C. BOARD (7)

P104-Tuner P.C. Board



P604-THX Pro-Logic DSP P.C. Board

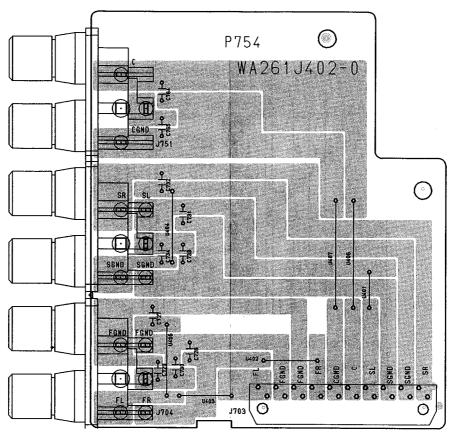


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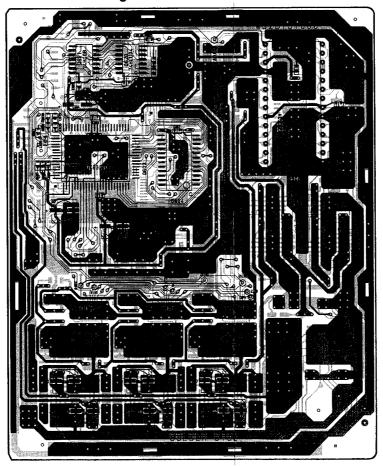
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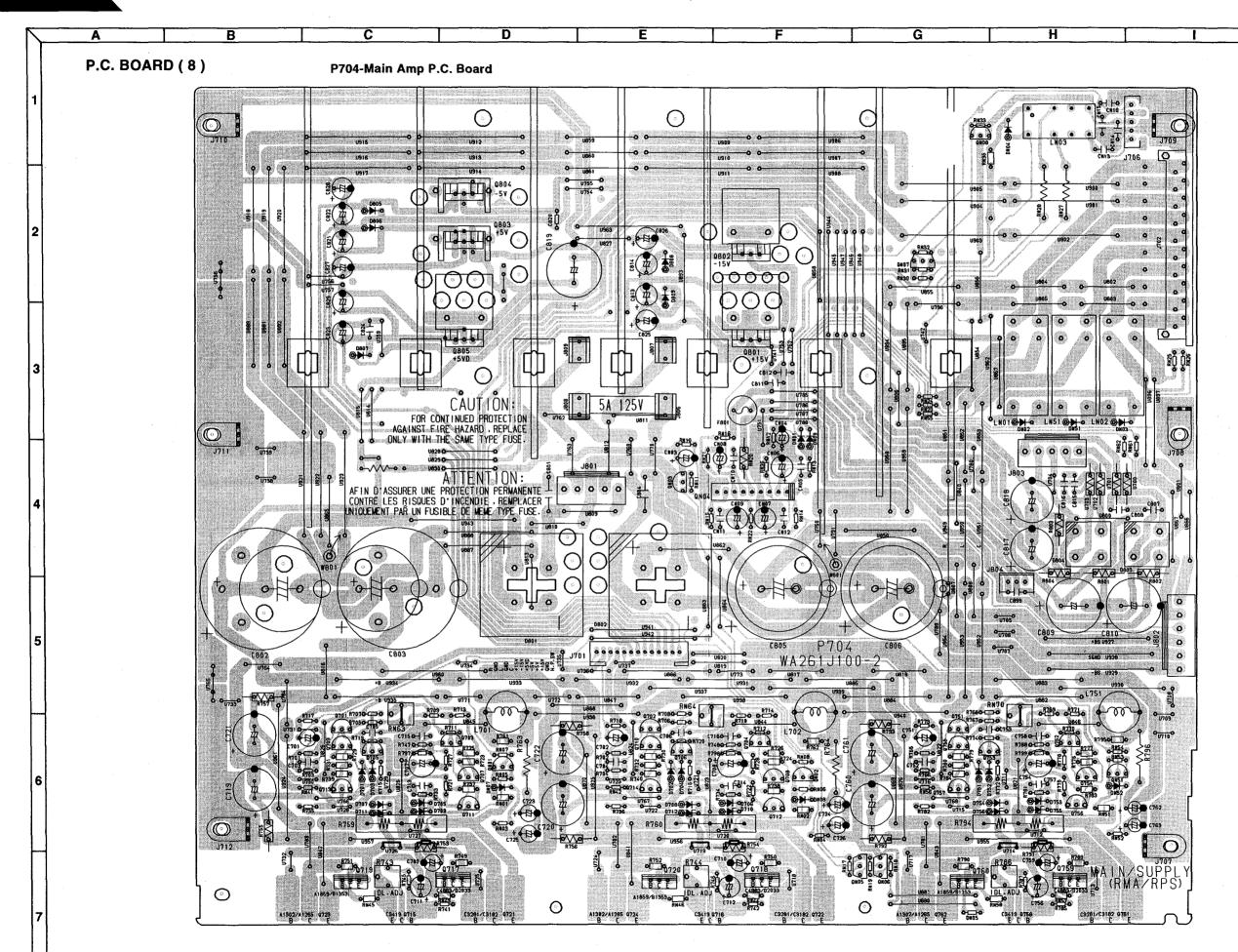
P754-SPK Terminal P.C. Board

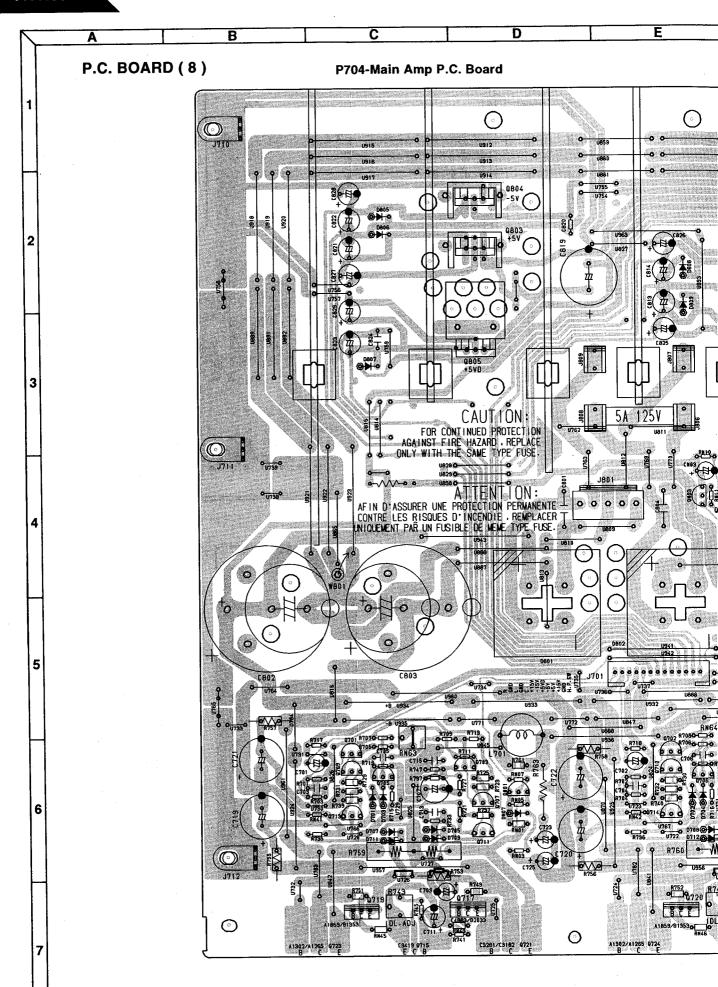
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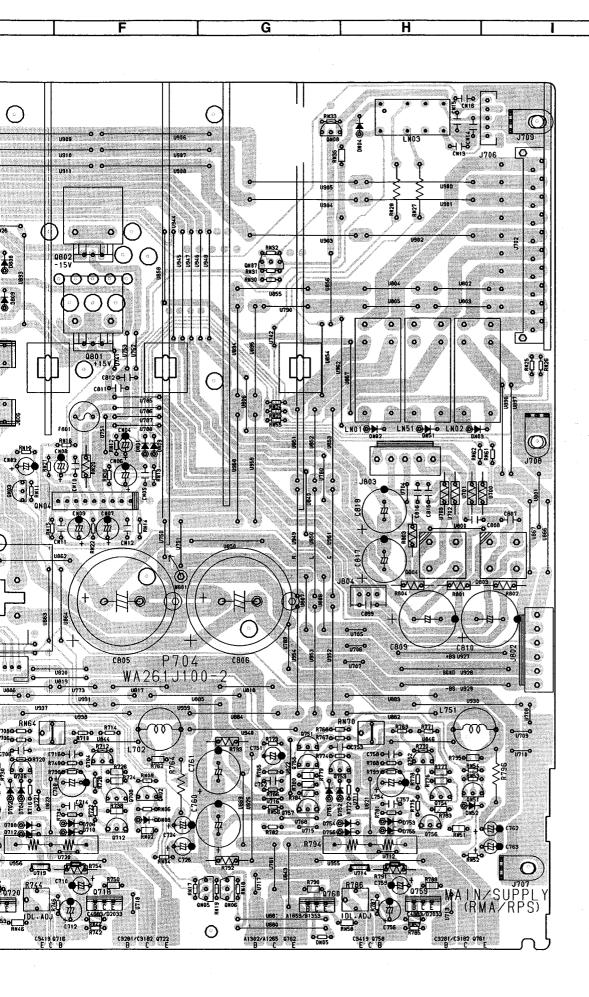


P604-THX Pro-Logic DSP P.C. Board









ELECTRICAL PARTS LIST

<u>Ref. No</u> .	Part. No.	Description	Ref. No.	Part. No.		Description
	PB04-BA	CK-UP P.C. BOARD		PE04-ELI	E.VOL P.C	.BOARD
		CAPACITORS			CAPACITO	DRS
CB01	EA47703510	ELECT 470µF 35V	CE01	OA10601620	ELECT	10μF 16V
CB02	EA10606310	ELECT 10µF 63V	CE02	OA10601620	ELECT	10μF 16V
CB03	EA47603510	ELECT 47µF 35V	CE03	EJ10601610	ELECT	10μF 16V
CB05	EA47705010	ELECT 470μF 50V	CE04	EJ10601610	ELECT	10μF 16V
CB06	EA47603510	ELECT 47μF 35V	CE05	EJ10601610	ELECT	10μF 16V
CB07	DK18103310	CERAMIC 0.01μF +80% -20%	CE06	EJ10601610	ELECT	10μF 16V
CB08	DK18103310	CERAMIC 0.01µF +80% -20%	CE07	OA47505020	ELECT	4.7μF 50V
▲ CB09 CB10	DK17103840 EA10606310	CERAMIC 0.01μF ±20% ELECT 10μF 63V	CE08 CE09	OA47505020 EJ47502510	ELECT ELECT	4.7μF 50V
CBTO	EA10000310	ELECT TOMP 63V	CE10	EJ47502510 EJ47502510	ELECT	4.7μF 25V 4.7μF 25V
		RESISTORS	CE11	EJ47502510	ELECT	4.7μF 25V
▲ RB01	GG05100140	1/4W 10 Ω ±5%	CE12	EJ47502510	ELECT	4.7μF 25V
▲ RB03	GA05471010	1W 470 Ω ±5%	CE13	OA47505020	ELECT	4.7μF 50V
RB04	GD05101160	1/6W 100 Ω ±5%	CE14	OA47505020	ELECT	4.7μF 50V
RB05	GD05101160	1/6W 100 Ω ±5%	CE15	EJ47502510	ELECT	4.7μF 25V
▲RB07	RC10225820	1/2W 2.2M Ω ±10% BK	CE16	EJ47502510	ELECT	4.7μF 25V
RB08	GD05103160	1/6W 10K Ω ±5%	CE17	EJ47502510	ELECT	4.7μF 25V
		INTEGRATED CIRCUITS	CE18 CE19	EJ47502510	ELECT	4.7μF 25V
▲ QB01	HC38905320	IC PQ05RR1 Voltage Regulator	CE20	OA47505020 OA47505020	ELECT ELECT	4.7μF 50V
24 Q D01	11000303020	10 1 Gootti (1 Vollage Hegulato)	CE21	EJ47502510	ELECT	4.7μF 50V 4.7μF 25V
		TRANSISTOR	CE22	EJ47502510	ELECT	4.7μF 25V
QB02	HT420331E0	2SD2033 (E)	CE23	EJ47502510	ELECT	4.7μF 25V
		· <i>,</i>	CE24	EJ47502510	ELECT	4.7μF 25V
		DIODES	CE25	OA47505020	ELECT	4.7μF 50V
▲ DB01	HD20002710	1D3 1A/200V	CE26	OA47505020	ELECT	4.7μF 50V
▲ DB02	HD20002710	1D3 1A/200V	CE27	EJ47502510	ELECT	4.7μF 25V
▲ DB03 ▲ DB04	HD20002710 HD20002710	1D3 1A/200V 1D3 1A/200V	CE28 CE29	EJ47502510	ELECT	4.7μF 25V
DB05	HD33301000	ZENER MTZJ33D	CE30	EJ47502510 EJ47502510	ELECT ELECT	4.7μF 25V 4.7μF 25V
DB06	HD30821000	ZENER NTJ8.2C	CE31	OA10601620	ELECT	10μF 16V
▲ DB07	HD20002710	1D3 1A/200V	CE32	OA10601620	ELECT	10μF 16V
▲DB08	HD20002710	1D3 1A/200V	CE33	EJ47502510	ELECT	4.7μF 25V
			CE34	EJ47502510	ELECT	4.7μF 25V
A EDO4	E0404000E0	MISCELLANEOUS	CE35	EJ47502510	ELECT	4.7μF 25V
▲ FB01 ▲ FB01	FS10400850	FUSE S506 4A 250V B FUSE SM8 8A 125V BK	CE36	EJ10601610	ELECT	10μF 16V
♣FB02	FS10800540 FS20250200	FUSE TR5 T2.5A 250V IB	CE41 CE42	OA10601620 OA10601620	ELECT ELECT	10μF 16V 10μF 16V
▲ FB03	FS20250200	FUSE TR5 T2.5A 250V IB	CE43	EJ10601610	ELECT	10μF 16V
JB01	YJ08000580	JACK, FUSE CLIP [MOMS]	CE44	EJ10601610	ELECT	10μF 16V
JB01	YJ08000590	JACK, FUSE CLIP (B) (AVR80)	CE45	EJ10601610	ELECT	10μF 16V
JB01	YJ08000170	JACK, FUSE CLIP BK	CE46	EJ10601610	ELECT	10μF 16V
JB02	YJ08000590	JACK, FUSE CLIP B [MOMS]	CV53	DF15182350	FILM	1800PF ±5%
JB02 JB02	YJ08000580 YJ08000170	JACK, FUSE CLIP (B) (AVR80) JACK, FUSE CLIP (BK)	CV54	DF15182350	FILM	1800PF ±5%
▲ JB03	YJ04002080	JACK, AC OUTLET 2P IB	CV55 CV59	DF15182350 DF15472350	FILM FILM	1800PF ±5% 4700PF ±5%
▲ JB03	YJ04002040	JACK, AC OUTLET 2P BK	CV60	DF15472350	FILM	4700PF ±5%
JB04	YP06006670	PLUG, 7P	CV61	DF15472350	FILM	4700PF ±5%
▲JB05	YP04000760	PLUG, 2P	CV62	DF15104350	FILM	0.1μF ±5%
▲ JB06	YP04000760	PLUG, 2P	CV65	DK16271300	CERAMIC	270PF ±10%
JB07	YL01010240	TERMINAL, GND	CV66	DK16271300	CERAMIC	270PF ±10%
JB09	YP06003830	PLUG, 3P	CV67	DK16271300	CERAMIC	270PF ±10%
JB10	YP06006930	PLUG, 3P (AVR80MKII)	CV68 CV71	DF15473310	FILM	0.047μF ±5%
▲ LB01 ▲ LB01	TS14823240 TS14823230	POWER TRANSF. POWER TRANSF. BK	CV71	EJ10601610 EJ10601610	ELECT ELECT	10μF 16V 10μF 16V
▲ LB01	LY10240240	RELAY, VS24MB-NR	CV72	EJ10601610	ELECT	10μF 16V 10μF 16V
	2.10210210	TOE MID IN C	CV74	EJ22601610	ELECT	22μF 16V
			CV75	DK16471300	CERAMIC	470PF ±10% (B)
			CV76	DK16471300	CERAMIC	470PF ±10% (B)
			CV77	DK16221300	CERAMIC	220PF ±10% 📵
			CV78	DK16221300	CERAMIC	220PF ±10% IB
			CV79	DK16221300	CERAMIC	220PF ±10% IB
			CV80 CV81	DK16102300 DK16221300	CERAMIC CERAMIC	1000PF ±10% IB 220PF ±10% IB
			CV81	DK16221300	CERAMIC	220PF ±10% B
			CV83	DK16221300	CERAMIC	220PF ±10% IB
					-	

Ref. No.	Part. No.	<u>Descriptio</u>	<u>n</u>	Ref. No.	Part, No.		Desci	ription
CV84	DK16221300		±10% 📵	RE73	GD05105160	1/6W	1ΜΩ	±5%
CV85	DK16471300	CERAMIC 470PF :	±10% 🚯	RE74	GD05105160	1/6W	1M Ω	
				RE75	GD05105160	1/6W	1M Ω	
		RESISTORS		RE76	GD05105160	1/6W	1ΜΩ	±5%
RE01	GD05104160		±5%	RE79	GD05104160	1/6W	100K Ω	±5%
RE02	GD05104160	1/6W 100K Ω :	±5%	RE80	GD05104160		100K Ω	±5%
RE03	GD05104160	1/6W 100K Ω	±5%	RE81	GD05104160		100K Ω	±5%
RE04	GD05104160	1/6W 100K Ω	±5%	RE82	GD05104160		100K Ω	±5%
RE05	GD05104160	1/6W 100K Ω	±5%	RV53	GD05392160	1/6W	3.9K Ω	±5%
RE06	GD05104160	1/6W 100K Ω =	±5%	RV54	GD05392160	1/6W	3.9K Ω	±5%
RE07	GD05332160	1/6W 3.3K Ω	!5 %	RV55	GD05392160	1/6W	3.9K Ω	±5%
RE08	GD05332160	1/6W 3.3K Ω ±	±5%	RV59	GD05392160	1/6W	3.9K Ω	±5%
RE09	GD05332160	1/6W 3.3K Ω ±	L 5%	RV60	GD05392160	1/6W	3.9K Ω	±5%
RE10	GD05332160	1/6W 3.3K Ω ±	±5%	RV61	GD05392160	1/6W	3.9K Ω	±5%
RE11	GD05332160	1/6W 3.3K Ω ±	Ŀ 5%	RV62	GD05273160	1/6W	27ΚΩ	±5%
RE12	GD05332160	1/6W 3.3K Ω ±	£5%	RV65	GD05392160	1/6W	3.9K Ω	±5%
RE13	GD05222160	1/6W 2.2K Ω ±	!5 %	RV66	GD05392160	1/6W	3.9K Ω	±5%
RE14	GD05222160	1/6W 2.2K Ω ±	£5%	RV67	GD05392160	1/6W	3.9K Ω	±5%
RE15	GD05222160	1/6W 2.2K Ω ±	£5%	RV68	GD05273160	1/6W	27ΚΩ	±5%
RE16	GD05222160	1/6W 2.2K Ω ±	£5%	RV69	GD05471160	1/6W	470 Ω	±5%
RE17	GD05222160	1/6W 2.2K Ω ±	£5%	RV70	GD05471160	1/6W	470 Ω	±5%
RE18	GD05222160	1/6W 2.2K Ω ±	£5%	RV71	GD05471160	1/6W	470 Ω	±5%
RE19	GD05104160	1/6W 100K Ω ±	±5%	RV72	GD05471160	1/6W	470 Ω	±5%
RE20	GD05104160	1/6W 100K Ω ±	±5%	RV73	GD05471160	1/6W	470 Ω	±5%
RE21	GD05104160	1/6W 100K Ω ±	±5%	RV74	GD05221160	1/6W	220 Ω	±5%
RE22	GD05104160	1/6W 100K Ω ±	-5%	RV75	GD05473160	1/6W	47K Ω	±5%
RE23	GD05104160	1/6W 100K Ω ±	-5%	RV76	GD05473160	1/6W	47KΩ	±5%
RE24	GD05104160	1/6W 100K Ω ±	-5%	RV77	GD05473160	1/6W	47KΩ	±5%
RE25	GD05331160	1/6W 330 Ω ±	-5%	RV78	GD05473160	1/6W	47KΩ	±5%
RE26	GD05331160	1/6W 330 Ω ±	-5%	RV79	GD05473160	1/6W	47K Ω	±5%
RE27	GD05331160	1/6W 330 Ω ±	5%	RV80	GD05473160	1/6W	47K Ω	±5%
RE28	GD05331160		5%	RV81	GD05103160	1/6W	10K Ω	±5%
RE29	GD05331160		5%	RV82	GD05103160	1/6W	10K Ω	±5%
RE30	GD05331160		5%	RV83	GD05103160	1/6W	10K Ω	±5%
RE31	GD05152160	1/6W 1.5K Ω ±	5%	RV84	GD05103160	1/6W	10K Ω	±5%
RE32	GD05152160		5%	RV85	GD05103160	1/6W	10K Ω	±5%
RE33	GD05152160		5%	RV86	GD05103160	1/6W	10K Ω	±5%
RE34	GD05152160		5%	RV87	GD05103160	1/6W	10K Ω	±5%
RE35	GD05152160		5%	RV88	GD05271160	1/6W	270 Ω	±5%
RE36	GD05152160		5%					
RE37	GD05334160		5%			INTEGRAT	ED CIRC	CUITS
RE38	GD05334160		5%	QE01	HC10008090	IC NJM4	558DD	Dual OP AMP
RE39	GD05334160		5%	QE02	HC10008090			Dual OP AMP
RE40	GD05334160		5%	QE03	HC10008090	IC NJM4	558DD	Dual OP AMP
RE41	GD05334160		5%	QE04	HC10304050	IC TC921	3P Elec	tric Volume (2ch)
RE42	GD05334160		5%	QE05	HC10304050	IC TC921	3P Elec	tric Volume (2ch)
	GD05152160		5%	QE06	HC10304050	IC TC921	3P Elec	tric Volume (2ch)
	GD05152160		5%	QE07	HC10008090			Dual OP AMP
	GD05152160		5%	QE08	HC10008090	IC NJM45	558DD	Dual OP AMP
	GD05152160		5%	QE09	HC10008090	IC NJM49	558DD	Dual OP AMP
	GD05152160		5%	QE10	HC10008090	IC NJM45	558DD	Dual OP AMP
	GD05152160		5%	QE11	HC10008090	IC NJM45	558DD	Dual OP AMP
	GD05104160		5%	QE12	HC10008090	IC NJM45	558DD	Dual OP AMP
	GD05104160		5%	QV58	HC10008090	IC NJM45	558DD 1	Dual OP AMP
	GD05104160		5%	QV59	HC10008090	IC NJM45	558DD	Dual OP AMP
	GD05104160		5%					
	GD05104160		5%			TRANSIST		
	GD05104160		5%	QV51	HT328782A0	2SC2878 (A	A, B)	
	GD05152160		5%	QV52	HT328782A0	2SC2878 (A	A, B)	•
	GD05152160		5%	QV53	HT328782A0	2SC2878 (A	λ, B)	
	GD05152160		5%		HT328782A0	2SC2878 (A	A, B)	
	GD05152160		5%	QV55	HT328782A0	2SC2878 (A	A, B)	
	GD05152160		5%	QV56	HT328782A0	2SC2878 (A	A, B)	
	GD05152160		5%	QV60	HT328782A0	2SC2878 (A		
	GD05152160		5%			,	•	
	GD05152160		5%					
	GD05152160		5%					
	GD05152160		5%					
	GD05152160		5%					
RE66	GD05152160	$1/6W$ $1.5K \Omega$ ± 5	5%					

Ref. No.	Part. No.	Descript	ion	Ref. No.	Part. No.		Descrip	<u>tion</u>
		COILS		DE10	CD05102160	4 (0)4/	401/ 0	
LV01	LC14733800	CHOKE 47µH		RF13 RF14	GD05103160 GD05103160	1/6W 1/6W	10K Ω 10K Ω	±5% ±5%
LV02	LC14733800	CHOKE 47µH B		RF15	GD05103160	1/6W	10K Ω	±5% ±5%
LV03	LC14733800	CHOKE 47µH B		RF17	GD05103160	1/6W	10K Ω	±5%
				RF18	GD05103160	1/6W	10K Ω	±5%
		MISCELLANEOUS		RF19	GD05103160	1/6W	10K Ω	±5%
JV52	YT02060540	TERMINAL, 6P RCA	PIN JACK 📵	RF20	GD05103160	1/6W	10K Ω	±5%
JV52	YT02060500	TERMINAL, 6P RCA		RF21	GD05223160	1/6W	$22K\Omega$	±5%
JV53	YT02041160	TERMINAL, 4P RCA		RF22	GD05223160	1/6W	22K Ω	±5%
JV53	YT02041110	TERMINAL, 4P RCA		RF23	GD05223160	1/6W	$22K\Omega$	±5%
JV54	YT02011020	TERMINAL, 1PRCA		RF24	GD05223160	1/6W	22K Ω	±5%
JV54 JV55	YT02010780	TERMINAL, 1PRCA	PIN JACK BY	RF29	GD05223160	1/6W	22K Ω	±5%
JV55 JV56	YJ06030600 YP06004570	JACK, 30P PLUG, 13P		RF30	GD05223160	1/6W	22ΚΩ	±5%
JV50 JV57	YP06006930	PLUG, 13P		RF31 RF32	GD05223160	1/6W	22ΚΩ	±5%
5457	11 00000930	reod, or		RF45	GD05223160 GD05102160	1/6W 1/6W	22K Ω	±5%
				RF46	GD05102160 GD05102160	1/6W	1ΚΩ 1ΚΩ	±5% ±5%
	DEAL TO	NE DA BARBO		RF81	GD05473160	1/6W	47K Ω	±5%
	PPU4-11	ONE P.C. BOARD		RF82	GD05473160	1/6W	47K Ω	±5%
		CAPACITORS		RF83	GD05473160	1/6W	47K Ω	±5%
CF01	EJ10601610		16V	RF84	GD05473160	1/6W	47K Ω	±5%
CF02	EJ10601610	•	16V					
CF03	EJ10601610		16V			CONTROL	S	
CF04	OA47601620		16V	RF41	RG01040140	VARIABLE,		
CF05	DK16222300	CERAMIC 2200PF		RF42	RG01040140	VARIABLE,	100K Ω (B) x 4
CF06	DK16222300	CERAMIC 2200PF	±10%	RF43	RK01040620	VARIABLE,	100K Ω (W)
CF07	DK16222300	CERAMIC 2200PF	±10%					
CF09	DD15101300	CERAMIC 100PF	±5%	0504		INTEGRAT		
CF10	DD15101300	CERAMIC 100PF		QF01	HC10031090	IC NJM20		ad OP AMP
CF11	DD15101300	CERAMIC 100PF		QF02 QF03	HC10008090			ual OP AMP
CF13	DF15153350	FILM 0.015μF		QF03	HC10008090	IC NJIVI4	ים טטאסס	ual OP AMP
CF14 CF15	DF15153350	FILM 0.015μF				MISCELLA	NEOUS	
CF16	DF15153350 DF15473310	FILM 0.015μF FILM 0.047μF		JF01	YP06006720	PLUG, 11P		
CF17	DF15153350	FILM 0.015µF				,		
CF18	DF15153350	FILM 0.015µF						
CF19	DF15153350	FILM 0.015μF		P	L04-VIDEO S	ELECTOR	P.C. RO	DARD
CF20	DF15473310	FILM 0.047μF	±5%	***************************************				
CF21	OA47601620	ELECT 47μF				CAPACITO	RS	
CF22	OA47601620	ELECT 47µF		CL01	EJ22601010	ELECT	•	10V
CF23 CF25	OA47601620	ELECT 47µF		CL02 CL03	EJ10601610	ELECT	10uF	16V
CF25 CF26	OA22601620 OA22601620	ELECT 22µF						
CF27	UNEZUU 10ZU	ELECT 220E	16\/		EJ22601010	ELECT	22μF	
	OA22601620	ELECT 22µF		CL04	EJ10601610	ELECT	22μF 10μF	16V
UEZO	OA22601620 OA22601620	ELECT 22μF	16V	CL04 CL05	EJ10601610 EJ22601010	ELECT ELECT	22μF 10μF 22μF	16V 10V
CF28 CF29	OA22601620	ELECT 22μF ELECT 22μF	16V 16V	CL04 CL05 CL06	EJ10601610 EJ22601010 EJ10601610	ELECT ELECT ELECT	22μF 10μF 22μF 10μF	16V 10V 16V
CF29 CF30		ELECT 22μF ELECT 22μF CERAMIC 47PF	16V 16V ±5%	CL04 CL05 CL06 CL09	EJ10601610 EJ22601010 EJ10601610 EJ22601010	ELECT ELECT ELECT ELECT	22µF 10µF 22µF 10µF 22µF	16V 10V 16V 10V
CF29 CF30 CF31	OA22601620 DD15470300	ELECT 22μF ELECT 22μF CERAMIC 47PF	16V 16V ±5% ±5%	CL04 CL05 CL06	EJ10601610 EJ22601010 EJ10601610	ELECT ELECT ELECT	22µF 10µF 22µF 10µF 22µF 10µF	16V 10V 16V 10V 16V
CF29 CF30 CF31 CF32	OA22601620 DD15470300 DD15470300	$ \begin{array}{ccc} \text{ELECT} & 22 \mu \text{F} \\ \text{ELECT} & 22 \mu \text{F} \\ \text{CERAMIC} & 47 \text{PF} \\ \text{CERAMIC} & 47 \text{PF} \end{array} $	16V 16V ±5% ±5%	CL04 CL05 CL06 CL09 CL10	EJ10601610 EJ22601010 EJ10601610 EJ22601010 EJ10601610	ELECT ELECT ELECT ELECT ELECT	22µF 10µF 22µF 10µF 22µF 10µF 0.1µF	16V 10V 16V 10V
CF29 CF30 CF31 CF32 CF40	OA22601620 DD15470300 DD15470300 DD15470300 DD15470300 DD15470300 OA10701620	$\begin{array}{ccc} ELECT & 22 \mu F \\ ELECT & 22 \mu F \\ CERAMIC & 47 PF \\ ELECT & 100 \mu F \\ \end{array}$	16V 16V ±5% ±5% ±5% 16V	CL04 CL05 CL06 CL09 CL10 CL14 CL15 CL16	EJ10601610 EJ22601010 EJ10601610 EJ22601010 EJ10601610 DD38104010	ELECT ELECT ELECT ELECT ELECT CERAMIC	22µF 10µF 22µF 10µF 22µF 10µF 0.1µF	16V 10V 16V 10V 16V +80% -20%
CF29 CF30 CF31 CF32 CF40 CF41	OA22601620 DD15470300 DD15470300 DD15470300 DD15470300 OA10701620 OA10701620	$\begin{array}{ccc} ELECT & 22 \mu F \\ ELECT & 22 \mu F \\ CERAMIC & 47 PF \\ ELECT & 100 \mu F \\ ELECT & 100 \mu F \\ \end{array}$	16V 16V ±5% ±5% ±5% 16V 16V	CL04 CL05 CL06 CL09 CL10 CL14 CL15 CL16 CL17	EJ10601610 EJ22601010 EJ10601610 EJ22601010 EJ10601610 DD38104010 DD38104010 DK18103310 DK18103310	ELECT ELECT ELECT ELECT CERAMIC CERAMIC CERAMIC CERAMIC	22µF 10µF 22µF 10µF 22µF 10µF 0.1µF 0.01µF	16V 10V 16V 10V 16V +80% -20% +80% -20% +80% -20% +80% -20%
CF29 CF30 CF31 CF32 CF40 CF41 CF43	OA22601620 DD15470300 DD15470300 DD15470300 DD15470300 OA10701620 OA10701620 DA17223110	$\begin{array}{ccc} ELECT & 22 \mu F \\ ELECT & 22 \mu F \\ CERAMIC & 47 PF \\ ELECT & 100 \mu F \\ ELECT & 100 \mu F \\ CERAMIC & 0.022 \mu F \\ \end{array}$	16V 16V ±5% ±5% ±5% ±5% 16V 16V ±20%	CL04 CL05 CL06 CL09 CL10 CL14 CL15 CL16 CL17	EJ10601610 EJ22601010 EJ10601610 EJ22601010 EJ10601610 DD38104010 DD38104010 DK18103310 DK18103310 EA22700610	ELECT ELECT ELECT ELECT CERAMIC CERAMIC CERAMIC CERAMIC ELECT	22µF 10µF 22µF 10µF 22µF 10µF 0.1µF 0.01µF 0.01µF 220µF	16V 10V 16V 10V 16V +80% -20% +80% -20% +80% -20% 6.3V
CF29 CF30 CF31 CF32 CF40 CF41 CF43	OA22601620 DD15470300 DD15470300 DD15470300 DD15470300 OA10701620 OA10701620 DA17223110 DA17223110	$ \begin{array}{lll} ELECT & 22 \mu F \\ ELECT & 22 \mu F \\ CERAMIC & 47 PF \\ ELECT & 100 \mu F \\ ELECT & 100 \mu F \\ CERAMIC & 0.022 \mu F \\ CERAMIC & 0.022 \mu F \\ \end{array} $	16V 16V ±5% ±5% ±5% 16V 16V ±20% ±20%	CL04 CL05 CL06 CL09 CL10 CL14 CL15 CL16 CL17 CL18 CL19	EJ10601610 EJ22601010 EJ10601610 EJ22601010 EJ10601610 DD38104010 DD38104010 DK18103310 DK18103310 EA22700610	ELECT ELECT ELECT ELECT CERAMIC CERAMIC CERAMIC CERAMIC ELECT ELECT	22µF 10µF 22µF 10µF 22µF 10µF 0.1µF 0.01µF 0.01µF 220µF 220µF	16V 10V 16V 10V 16V +80% -20% +80% -20% +80% -20% 6.3V 6.3V
CF29 CF30 CF31 CF32 CF40 CF41 CF43 CF44 CF45	OA22601620 DD15470300 DD15470300 DD15470300 DD15470300 OA10701620 OA10701620 DA17223110 DA17223110 DA17223110	ELECT 22μF ELECT 22μF CERAMIC 47PF CERAMIC 47PF CERAMIC 47PF ELECT 100μF ELECT 100μF CERAMIC 0.022μF CERAMIC 0.022μF CERAMIC 0.022μF CERAMIC 0.022μF	16V 16V ±5% ±5% ±5% ±5% 16V 16V ±20% ±20%	CL04 CL05 CL06 CL09 CL10 CL14 CL15 CL16 CL17 CL18 CL19 CL20	EJ10601610 EJ22601010 EJ10601610 EJ22601010 EJ10601610 DD38104010 DD38104010 DK18103310 DK18103310 EA22700610 EA22700610 EJ22601010	ELECT ELECT ELECT ELECT CERAMIC CERAMIC CERAMIC CERAMIC ELECT ELECT ELECT ELECT	22µF 10µF 22µF 10µF 22µF 10µF 0.1µF 0.01µF 0.01µF 220µF 220µF 22µF	16V 10V 16V 10V 16V +80% -20% +80% -20% +80% -20% 6.3V 6.3V 10V
CF29 CF30 CF31 CF32 CF40 CF41 CF43 CF44 CF45 CF46	OA22601620 DD15470300 DD15470300 DD15470300 DD15470300 OA10701620 OA10701620 DA17223110 DA17223110 DA17223110 DA17223110	ELECT 22μF ELECT 22μF CERAMIC 47PF CERAMIC 47PF CERAMIC 47PF ELECT 100μF ELECT 100μF CERAMIC 0.022μF CERAMIC 0.022μF CERAMIC 0.022μF CERAMIC 0.022μF CERAMIC 0.022μF	16V 16V ±5% ±5% ±5% ±5% 16V 16V ±20% ±20% ±20%	CL04 CL05 CL06 CL09 CL10 CL14 CL15 CL16 CL17 CL18 CL19 CL20 CL21	EJ10601610 EJ22601010 EJ10601610 EJ22601010 EJ10601610 DD38104010 DD38104010 DK18103310 DK18103310 EA22700610 EA22700610 EJ22601010 EA10701010	ELECT ELECT ELECT ELECT CERAMIC CERAMIC CERAMIC CERAMIC ELECT ELECT ELECT ELECT ELECT	22µF 10µF 22µF 10µF 22µF 0.1µF 0.01µF 0.01µF 0.01µF 220µF 220µF 22µF	16V 10V 16V 10V 16V +80% -20% +80% -20% +80% -20% 6.3V 6.3V 10V
CF29 CF30 CF31 CF32 CF40 CF41 CF43 CF44 CF45 CF46 CF47	OA22601620 DD15470300 DD15470300 DD15470300 DD15470300 OA10701620 OA10701620 DA17223110 DA17223110 DA17223110 DA17223110 DA17223110	ELECT 22μF ELECT 22μF CERAMIC 47PF CERAMIC 47PF CERAMIC 47PF ELECT 100μF ELECT 100μF CERAMIC 0.022μF	16V 16V ±5% ±5% ±5% ±5% ±6V 16V ±20% ±20% ±20% ±20%	CL04 CL05 CL06 CL09 CL10 CL14 CL15 CL16 CL17 CL18 CL19 CL20 CL21	EJ10601610 EJ22601010 EJ10601610 EJ22601010 EJ10601610 DD38104010 DD38104010 DK18103310 DK18103310 EA22700610 EA22700610 EJ22601010 EA10701010 DK18103310	ELECT ELECT ELECT ELECT CERAMIC CERAMIC CERAMIC CERAMIC ELECT ELECT ELECT ELECT ELECT CERAMIC	22µF 10µF 22µF 10µF 22µF 0.1µF 0.01µF 0.01µF 220µF 220µF 22µF 100µF 0.01µF	16V 10V 16V 10V 16V +80% -20% +80% -20% +80% -20% 6.3V 6.3V 10V 10V +80% -20%
CF29 CF30 CF31 CF32 CF40 CF41 CF43 CF44 CF45 CF46	OA22601620 DD15470300 DD15470300 DD15470300 DD15470300 OA10701620 OA10701620 DA17223110 DA17223110 DA17223110 DA17223110	ELECT 22μF ELECT 22μF CERAMIC 47PF CERAMIC 47PF CERAMIC 47PF ELECT 100μF ELECT 100μF CERAMIC 0.022μF CERAMIC 0.022μF CERAMIC 0.022μF CERAMIC 0.022μF CERAMIC 0.022μF	16V 16V ±5% ±5% ±5% ±5% ±6V 16V ±20% ±20% ±20% ±20%	CL04 CL05 CL06 CL09 CL10 CL14 CL15 CL16 CL17 CL18 CL19 CL20 CL21 CL22 CL23	EJ10601610 EJ22601010 EJ10601610 EJ10601610 DD38104010 DX18103310 DK18103310 DK18103310 EA22700610 EA22700610 EJ22601010 EA10701010 DK18103310 EJ22601010	ELECT ELECT ELECT ELECT CERAMIC CERAMIC CERAMIC CERAMIC ELECT	22µF 10µF 22µF 10µF 22µF 0.1µF 0.01µF 0.01µF 220µF 220µF 220µF 100µF 0.01µF	16V 10V 16V 10V 16V +80% -20% +80% -20% +80% -20% 6.3V 6.3V 10V 10V +80% -20%
CF29 CF30 CF31 CF32 CF40 CF41 CF43 CF44 CF45 CF46 CF47	OA22601620 DD15470300 DD15470300 DD15470300 DD15470300 OA10701620 OA10701620 DA17223110 DA17223110 DA17223110 DA17223110 DA17223110	ELECT 22μF ELECT 22μF CERAMIC 47PF CERAMIC 47PF CERAMIC 47PF ELECT 100μF ELECT 100μF CERAMIC 0.022μF	16V 16V ±5% ±5% ±5% ±5% ±6V 16V ±20% ±20% ±20% ±20%	CL04 CL05 CL06 CL09 CL10 CL14 CL15 CL16 CL17 CL18 CL19 CL20 CL21 CL22 CL23 CL31	EJ10601610 EJ22601010 EJ10601610 EJ22601010 EJ10601610 DD38104010 DD38104010 DK18103310 DK18103310 EA22700610 EA22700610 EJ22601010 DK18103310 EJ22601010 DK18103310 EJ22601010	ELECT ELECT ELECT ELECT CERAMIC CERAMIC CERAMIC CERAMIC ELECT ELECT ELECT ELECT ELECT CERAMIC ELECT CERAMIC	22µF 10µF 22µF 10µF 22µF 0.1µF 0.01µF 220µF 220µF 220µF 220µF 22µF 100µF 0.01µF	16V 10V 16V 10V 16V +80% -20% +80% -20% +80% -20% 6.3V 6.3V 6.3V 10V 10V 10V +80% -20% 10V 10V
CF29 CF30 CF31 CF32 CF40 CF41 CF43 CF44 CF45 CF46 CF47	OA22601620 DD15470300 DD15470300 DD15470300 DD15470300 OA10701620 OA10701620 DA17223110 DA17223110 DA17223110 DA17223110 DA17223110	ELECT 22μF ELECT 22μF CERAMIC 47PF CERAMIC 47PF CERAMIC 47PF ELECT 100μF ELECT 100μF CERAMIC 0.022μF	16V 16V ±5% ±5% ±5% ±5% 16V 16V ±20% ±20% ±20% ±20% ±20%	CL04 CL05 CL06 CL09 CL10 CL14 CL15 CL16 CL17 CL18 CL19 CL20 CL21 CL22 CL23	EJ10601610 EJ22601010 EJ10601610 EJ10601610 DD38104010 DX18103310 DK18103310 DK18103310 EA22700610 EA22700610 EJ22601010 EA10701010 DK18103310 EJ22601010	ELECT ELECT ELECT ELECT CERAMIC CERAMIC CERAMIC ELECT ELECT ELECT ELECT ELECT ELECT CERAMIC ELECT CERAMIC ELECT	22µF 10µF 22µF 10µF 22µF 0.1µF 0.01µF 0.01µF 220µF 22µF 100µF 22µF 0.01µF 4.7µF	16V 10V 16V 10V 16V +80% -20% +80% -20% +80% -20% 6.3V 6.3V 6.3V 10V 10V 10V +80% -20% 10V 25V
CF29 CF30 CF31 CF32 CF40 CF41 CF43 CF44 CF45 CF46 CF47 CF48 RF01 RF02	OA22601620 DD15470300 DD15470300 DD15470300 DD15470300 OA10701620 OA10701620 DA17223110 DA17223110 DA17223110 DA17223110 DA17223110 DA17223110	ELECT 22μF ELECT 22μF CERAMIC 47PF CERAMIC 47PF CERAMIC 47PF CERAMIC 47PF ELECT 100μF CERAMIC 0.022μF	16V 16V ±5% ±5% ±5% 16V 16V ±20% ±20% ±20% ±20% ±20%	CL04 CL05 CL06 CL09 CL10 CL14 CL15 CL16 CL17 CL18 CL19 CL20 CL21 CL22 CL23 CL31 CX49	EJ10601610 EJ22601010 EJ10601610 EJ22601010 EJ10601610 DD38104010 DD38104010 DK18103310 EA22700610 EA22700610 EJ22601010 DK18103310 EJ22601010 DK18103310 EJ22601010 DK18103310 EJ22601010 DS38104010 EJ47502510	ELECT ELECT ELECT ELECT CERAMIC CERAMIC CERAMIC CERAMIC ELECT ELECT ELECT ELECT ELECT CERAMIC ELECT CERAMIC	22µF 10µF 22µF 10µF 22µF 0.1µF 0.01µF 220µF 220µF 220µF 220µF 22µF 100µF 0.01µF	16V 10V 16V 10V 16V +80% -20% +80% -20% +80% -20% 6.3V 6.3V 6.3V 10V 10V 10V +80% -20% 10V 10V 10V
CF29 CF30 CF31 CF32 CF40 CF41 CF43 CF44 CF45 CF46 CF47 CF48 RF01 RF02 RF03	OA22601620 DD15470300 DD15470300 DD15470300 DD15470300 OA10701620 OA10701620 DA17223110 DA17223110 DA17223110 DA17223110 DA17223110 DA17223110 DA17223110 GD05473160 GD05473160 GD05473160	ELECT 22μF ELECT 22μF CERAMIC 47PF CERAMIC 47PF CERAMIC 47PF CERAMIC 47PF ELECT 100μF ELECT 100μF CERAMIC 0.022μF	16V 16V ±5% ±5% ±5% ±5% 16V ±20% ±20% ±20% ±20% ±20% ±20%	CL04 CL05 CL06 CL09 CL10 CL14 CL15 CL16 CL17 CL18 CL19 CL20 CL21 CL22 CL23 CL31 CX49 CX50	EJ10601610 EJ22601010 EJ10601610 EJ22601010 EJ10601610 DD38104010 DD38104010 DK18103310 DK18103310 EA22700610 EA22700610 EJ22601010 DK18103310 EJ22601010 DK18103310 EJ22601010 DK18103310 EJ22601010 DJ38104010 EJ47502510 EA47601010	ELECT ELECT ELECT ELECT CERAMIC CERAMIC CERAMIC ELECT ELECT ELECT ELECT ELECT CERAMIC ELECT	22µF 10µF 22µF 10µF 22µF 0.1µF 0.01µF 220µF 220µF 220µF 22µF 100µF 0.01µF 4.7µF 4.7µF	16V 10V 16V 10V 16V +80% -20% +80% -20% +80% -20% 6.3V 6.3V 6.3V 10V 10V 10V +80% -20% 10V 10V 10V
CF29 CF30 CF31 CF32 CF40 CF41 CF43 CF44 CF45 CF46 CF47 CF48 RF01 RF02 RF03 RF04	OA22601620 DD15470300 DD15470300 DD15470300 DD15470300 OA10701620 OA10701620 DA17223110 DA17223110 DA17223110 DA17223110 DA17223110 DA17223110 DA17223110 GD05473160 GD05473160 GD05473160 GD05473160	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	16V 16V 15% 15% 15% 15% 16V 16V 120% 120% 120% 120% 120% 15% 15% 15%	CL04 CL05 CL06 CL09 CL10 CL14 CL15 CL16 CL17 CL18 CL19 CL20 CL21 CL22 CL23 CL31 CX49 CX50 CX51 CX52 CX53	EJ10601610 EJ22601010 EJ10601610 EJ22601010 EJ10601610 DD38104010 DD38104010 DK18103310 EA22700610 EA22700610 EJ22601010 EA10701010 DK18103310 EJ22601010 DK18103310 EJ22601010 DK1870310 EJ22601010 DJ38104010 EJ47502510 EA47601010 EA22700610	ELECT ELECT ELECT ELECT CERAMIC CERAMIC CERAMIC ELECT ELECT ELECT ELECT ELECT CERAMIC ELECT	22µF 10µF 22µF 10µF 22µF 0.1µF 0.01µF 220µF 220µF 220µF 22µF 100µF 0.01µF 4.7µF 4.7µF	16V 10V 16V 10V 16V +80% -20% +80% -20% +80% -20% 6.3V 10V 10V +80% -20% 10V 10V +80% -20% 25V 10V 6.3V 480% -20%
CF29 CF30 CF31 CF32 CF40 CF41 CF43 CF44 CF45 CF46 CF47 CF48 RF01 RF02 RF03 RF04 RF05	OA22601620 DD15470300 DD15470300 DD15470300 DD15470300 OA10701620 OA10701620 DA17223110 DA17223110 DA17223110 DA17223110 DA17223110 DA17223110 DA17223110 GD05473160 GD05473160 GD05473160 GD05473160 GD05473160 GD05470160	ELECT 22μ F ELECT 22μ F CERAMIC $47PF$ CERAMIC $47PF$ CERAMIC $47PF$ CERAMIC $47PF$ ELECT 100μ F CERAMIC 0.022μ F RESISTORS 1/6W 1/6W 47K Ω	16V 16V 15% 15% 15% 15% 16V 16V 120% 120% 120% 120% 120% 15% 15% 15% 15% 15% 15%	CL04 CL05 CL06 CL09 CL10 CL14 CL15 CL16 CL17 CL18 CL19 CL20 CL21 CL22 CL23 CL31 CX49 CX50 CX51 CX52 CX53 CX54	EJ10601610 EJ22601010 EJ10601610 EJ22601010 EJ10601610 DD38104010 DD38104010 DK18103310 EA22700610 EA22700610 EA10701010 DK18103310 EJ22601010 EJ22601010 DK18103310 EJ22601010 DS38104010 EJ47502510 EA47601010 EA22700610 DK18103310	ELECT ELECT ELECT ELECT CERAMIC CERAMIC CERAMIC ELECT ELECT ELECT ELECT ELECT CERAMIC ELECT ELECT ELECT ELECT CERAMIC ELECT CERAMIC ELECT CERAMIC ELECT CERAMIC ELECT ELECT CERAMIC ELECT CERAMIC	22µF 10µF 22µF 10µF 22µF 10µF 0.1µF 0.01µF 220µF 220µF 22µF 0.01µF 47µF 47µF 220µF	16V 10V 16V 10V 16V +80% -20% +80% -20% +80% -20% 6.3V 10V 10V +80% -20% 10V 10V +80% -20% 25V 10V 6.3V 480% -20%
CF29 CF30 CF31 CF32 CF40 CF41 CF43 CF44 CF45 CF46 CF47 CF48 RF01 RF02 RF03 RF04 RF05 RF06	OA22601620 DD15470300 DD15470300 DD15470300 DD15470300 OA10701620 OA10701620 DA17223110 DA17223110 DA17223110 DA17223110 DA17223110 DA17223110 DA17223110 GD05473160 GD05473160 GD05473160 GD05470160 GD05470160	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	16V 16V 15% 15% 15% 15% 16V 16V 120% 120% 120% 120% 120% 15% 15% 15% 15% 15% 15%	CL04 CL05 CL06 CL09 CL10 CL14 CL15 CL16 CL17 CL18 CL19 CL20 CL21 CL22 CL23 CL31 CX49 CX50 CX51 CX52 CX53 CX54 CX55	EJ10601610 EJ22601010 EJ10601610 EJ22601010 EJ10601610 DD38104010 DD38104010 DK18103310 EA22700610 EJ22601010 EA10701010 DK18103310 EJ22601010 DJ38104010 EJ47502510 EA47601010 EA42700610 DK18103310 EA22700610 DK18103310 EA22700610 DK18103310 EA22700610	ELECT ELECT ELECT ELECT CERAMIC CERAMIC CERAMIC CERAMIC ELECT ELECT ELECT ELECT CERAMIC ELECT ELECT CERAMIC ELECT CERAMIC ELECT CERAMIC ELECT ELECT ELECT ELECT ELECT ELECT ELECT ELECT ELECT CERAMIC ELECT CERAMIC ELECT CERAMIC ELECT CERAMIC ELECT CERAMIC ELECT CERAMIC	22µF 10µF 22µF 10µF 22µF 10µF 0.1µF 0.01µF 220µF 220µF 22µF 100µF 0.01µF 22µF 4.7µF 4.7µF 4.7µF 220µF 0.01µF 220µF	16V 10V 16V 10V 16V +80% -20% +80% -20% +80% -20% 6.3V 6.3V 10V 10V +80% -20% 10V 10V +80% -20% 6.3V 6.3V 10V +80% -20% 6.3V 10V 10V +80% -20% 6.3V 10V 10V 10V 10V 10V 10V 10V 10
CF29 CF30 CF31 CF32 CF40 CF41 CF43 CF44 CF45 CF46 CF47 CF48 RF01 RF02 RF03 RF04 RF05 RF06 RF07	OA22601620 DD15470300 DD15470300 DD15470300 DD15470300 OA10701620 OA10701620 DA17223110 DA17223110 DA17223110 DA17223110 DA17223110 DA17223110 DA17223110 GD05473160 GD05473160 GD05473160 GD05470160 GD05470160 GD05470160	ELECT 22μ F ELECT 22μ F CERAMIC $47PF$ CERAMIC $47PF$ CERAMIC $47PF$ CERAMIC $47PF$ ELECT 100μ F ELECT 100μ F CERAMIC 0.022μ F	16V 16V 15% 15% 15% 15% 16V 16V 120% 120% 120% 120% 120% 15% 15% 15% 15% 15% 15% 15% 15%	CL04 CL05 CL06 CL09 CL10 CL14 CL15 CL16 CL17 CL18 CL19 CL20 CL21 CL22 CL23 CL31 CX49 CX50 CX51 CX52 CX53 CX54 CX55 CX56	EJ10601610 EJ22601010 EJ10601610 EJ22601010 EJ10601610 DJ38104010 DJ38104010 DK18103310 DK18103310 EA22700610 EJ22601010 EA10701010 DK18103310 EJ22601010 DJ38104010 EJ47502510 EA47601010 DA18103310 EJ22700610 DK18103310 EA22700610 DK18103310 DK1822700610 DK18103310 DK18103310 DK18103310 DK18220300 DD15220300	ELECT ELECT ELECT ELECT CERAMIC CERAMIC CERAMIC CERAMIC ELECT ELECT ELECT ELECT CERAMIC ELECT ELECT CERAMIC ELECT CERAMIC ELECT CERAMIC ELECT ELECT ELECT ELECT ELECT CERAMIC ELECT CERAMIC ELECT CERAMIC ELECT CERAMIC CERAMIC CERAMIC	22µF 10µF 22µF 10µF 22µF 0.1µF 0.01µF 0.01µF 220µF 22µF 100µF 0.01µF 22µF 0.01µF 47µF 47µF 220µF 0.01µF 220µF 0.01µF 220µF 0.01µF	16V 10V 16V 10V 16V +80% -20% +80% -20% +80% -20% 6.3V 10V 10V +80% -20% 10V 10V +80% -20% 6.3V 10V 6.3V 10V 6.3V 10V 55V 10V 6.3V +80% -20% 6.3V +80% -20% 6.3V 10V 55V 10V 55V 15% 55%
CF29 CF30 CF31 CF32 CF40 CF41 CF43 CF44 CF45 CF46 CF47 CF48 RF01 RF02 RF03 RF04 RF05 RF06 RF07 RF08	OA22601620 DD15470300 DD15470300 DD15470300 DD15470300 OA10701620 OA10701620 OA17223110 DA17223110 DA17223110 DA17223110 DA17223110 DA17223110 DA17223110 GD05473160 GD05473160 GD05473160 GD05473160 GD05470160 GD05470160 GD05470160 GD05470160	ELECT 22μ F ELECT 22μ F CERAMIC $47PF$ CERAMIC $47PF$ CERAMIC $47PF$ CERAMIC $47PF$ ELECT 100μ F CERAMIC 0.022μ F	16V 16V 15% 15% 15% 15% 16V 16V 120% 120% 120% 120% 120% 15% 15% 15% 15% 15% 15% 15% 15%	CL04 CL05 CL06 CL09 CL10 CL14 CL15 CL16 CL17 CL18 CL19 CL20 CL21 CL22 CL23 CL31 CX49 CX50 CX51 CX52 CX53 CX54 CX55 CX56 CX57	EJ10601610 EJ22601010 EJ10601610 EJ22601010 EJ10601610 DJ38104010 DJ38104010 DK18103310 DK18103310 EA22700610 EJ22601010 EA10701010 DK18103310 EJ22601010 DJ38104010 EJ47502510 EA47601010 EA22700610 EA22700610 DK18103310 EJ22700610 DK18103310 DK18103310 DK18103310 DK18103310 DK18103310 DK18103310 DK18103310 DK18103310 DK18103310 DD15220300 DD15220300	ELECT ELECT ELECT ELECT CERAMIC CERAMIC CERAMIC CERAMIC ELECT ELECT ELECT ELECT ELECT CERAMIC CERAMIC CERAMIC CERAMIC CERAMIC	22µF 10µF 22µF 10µF 22µF 0.1µF 0.01µF 0.01µF 220µF 220µF 22µF 0.01µF 47µF 47µF 220µF 0.01µF 220µF 0.01µF 220µF 0.01µF 220µF 220µF 220µF 220µF 220µF 220µF 220µF 220µF	16V 10V 16V 10V 16V +80% -20% +80% -20% +80% -20% 6.3V 10V 10V 10V +80% -20% 10V 10V +80% -20% 6.3V 10V 5.3V 10V 6.3V 10V 10V 10V 10V 10V 10V 10V 10
CF29 CF30 CF31 CF32 CF40 CF41 CF43 CF44 CF45 CF46 CF47 CF48 RF01 RF02 RF03 RF04 RF05 RF06 RF07 RF08 RF09	OA22601620 DD15470300 DD15470300 DD15470300 DD15470300 OA10701620 OA10701620 OA17223110 DA17223110 DA17223110 DA17223110 DA17223110 DA17223110 DA17223110 GD05473160 GD05473160 GD05473160 GD05473160 GD05470160 GD05470160 GD05470160 GD05470160 GD05470160 GD05470160 GD05470160 GD05470160 GD05470160 GD05470160 GD05470160 GD05470160	ELECT 22μ F ELECT 22μ F CERAMIC 47 PF CERAMIC 47 PF CERAMIC 47 PF ELECT 100μ F ELECT 100μ F CERAMIC 0.022μ F	16V 16V 15% 15% 15% 15% 16V 16V 120% 120% 120% 120% 120% 15% 15% 15% 15% 15% 15% 15% 15% 15%	CL04 CL05 CL06 CL09 CL10 CL14 CL15 CL16 CL17 CL18 CL19 CL20 CL21 CL22 CL23 CL31 CX49 CX50 CX51 CX52 CX53 CX54 CX55 CX56 CX57 CX58	EJ10601610 EJ22601010 EJ10601610 EJ22601010 EJ10601610 DJ38104010 DJ38104010 DK18103310 DK18103310 EA22700610 EJ22601010 EA10701010 DK18103310 EJ22601010 DJ38104010 EJ47502510 EA47601010 EA47601010 EA22700610 DK18103310 EJ22700610 DK18103310 DJ15220300 DD15220300 DD15220300 DD15220300	ELECT ELECT ELECT ELECT CERAMIC CERAMIC CERAMIC ELECT ELECT ELECT ELECT ELECT CERAMIC CERAMIC CERAMIC CERAMIC CERAMIC CERAMIC	22µF 10µF 22µF 10µF 22µF 0.1µF 0.01µF 0.01µF 220µF 22µF 100µF 0.01µF 22µF 0.01µF 220µF 0.01µF 220µF 0.01µF 220µF 0.01µF 220µF 220µF 220µF 220µF 220µF 220µF 220µF 22PF	16V 10V 16V 10V 16V +80% -20% +80% -20% +80% -20% 6.3V 10V 10V 10V +80% -20% 10V 10V 6.3V 10V 6.3V 10V 6.3V 10V 6.3V 10V 6.3V 10V 6.3V 10V 6.3V 10V 6.3V 10V 10V 10V 10V 10V 10V 10V 10
CF29 CF30 CF31 CF32 CF40 CF41 CF43 CF44 CF45 CF46 CF47 CF48 RF01 RF02 RF03 RF04 RF05 RF06 RF07 RF08	OA22601620 DD15470300 DD15470300 DD15470300 DD15470300 OA10701620 OA10701620 OA17223110 DA17223110 DA17223110 DA17223110 DA17223110 DA17223110 DA17223110 GD05473160 GD05473160 GD05473160 GD05473160 GD05470160 GD05470160 GD05470160 GD05470160	ELECT 22μ F ELECT 22μ F CERAMIC $47PF$ CERAMIC $47PF$ CERAMIC $47PF$ CERAMIC $47PF$ ELECT 100μ F CERAMIC 0.022μ F	16V 16V 15% 15% 15% 15% 16V 16V 120% 120% 120% 120% 120% 15% 15% 15% 15% 15% 15% 15% 15%	CL04 CL05 CL06 CL09 CL10 CL14 CL15 CL16 CL17 CL18 CL19 CL20 CL21 CL22 CL23 CL31 CX49 CX50 CX51 CX52 CX53 CX54 CX55 CX56 CX57	EJ10601610 EJ22601010 EJ10601610 EJ22601010 EJ10601610 DJ38104010 DJ38104010 DK18103310 DK18103310 EA22700610 EJ22601010 EA10701010 DK18103310 EJ22601010 DJ38104010 EJ47502510 EA47601010 EA22700610 EA22700610 DK18103310 EJ22700610 DK18103310 DK18103310 DK18103310 DK18103310 DK18103310 DK18103310 DK18103310 DK18103310 DK18103310 DD15220300 DD15220300	ELECT ELECT ELECT ELECT CERAMIC CERAMIC CERAMIC CERAMIC ELECT ELECT ELECT ELECT ELECT CERAMIC CERAMIC CERAMIC CERAMIC CERAMIC	22µF 10µF 22µF 10µF 22µF 0.1µF 0.01µF 0.01µF 220µF 220µF 22µF 0.01µF 47µF 47µF 220µF 0.01µF 220µF 0.01µF 220µF 0.01µF 220µF 220µF 220µF 220µF 220µF 220µF 220µF 220µF	16V 10V 16V 10V 16V +80% -20% +80% -20% +80% -20% 6.3V 10V 10V 10V +80% -20% 10V 10V 6.3V 10V 6.3V 10V 6.3V 10V 6.3V 10V 6.3V 10V 6.3V 10V 6.3V 10V 6.3V 10V 10V 10V 10V 10V 10V 10V 10

Ref. No.	Part. No.	Description	Ref. No.	Part. No.	<u>Description</u>
CX60	DD15560300	CERAMIC 56PF ±5%	DL07	HD20002000	1SS176
CX61	EJ10505010	ELECT 1µF 50V	DL08	HD20002000	1SS176
CX62	DK16122300	CERAMIC 1200PF ±10%	DL09	HD20002000	1SS176
CX63	EJ10505010	ELECT 1μF 50V	DL10	HD20002000	1SS176
CX64	DF15682350	FILM 0.0068µF ±5%	DX61	HD20002000	1SS176
CX65	DF15223350	FILM 0.022μF ±5%			100110
CX66	DD15470300	CERAMIC 47PF ±5%			COILS
CX67	CT12000200	TRIMMING 20PF	LX51	LC12233800	CHOKE, 22µH
CX69	EA47601010	ELECT 47μF 10V	LX52	LC15623800	CHOKE, 5.6µH
CX70	EJ47502510	ELECT 4.7μF 25V			or or tall or open
CX72	DK18103310	CERAMIC 0.01µF +80% -20%			MISCELLANEOUS
CX73	EA22700610	ELECT 220μF 6.3V	JL01	YT02041130	TERMINAL, 4P RCA PIN JACK
CX74	EJ10505010	ELECT 1μF 50V	JL02	YT02030370	TERMINAL, 3P RCA PIN JACK
CX75	EJ22601010	ELECT 22µF 10V	JL03	YP06020640	PLUG, 14P
CX76	EA10701010	ELECT 100μF 10V	LX53	FM12223010	EMI FILTER
			XX51	JX14001260	CRYSTAL, 14.31818MHz
		RESISTORS	XX52	JX17001260	CRYSTAL, 17.7MHz (IB)
RL01	GD05820160	1/6W 82 Ω ±5%			,
RL02	GD05100160	1/6W 10 Ω ±5%			
RL03	GD05820160	1/6W 82 Ω ±5%		DIEACY	IDEO P.C. BOARD
RL04	GD05100160	1/6W 10 Ω ±5%		,	IDEO F.G. BOARD
RL05	GD05820160	1/6W 82 Ω ±5%			CAPACITORS
RL06	GD05100160	1/6W 10 Ω ±5%	CL51	EJ10601610	ELECT 10µF 16V
RL07	GD05750160	1/6W 75 Ω ±5%	CL52	EJ10601610	ELECT 10μF 16V
RL09	GD05820160	1/6W 82 Ω ±5%	CL53	EJ10601610	ELECT 10μF 16V
RL10	GD05100160	1/6W 10 Ω ±5%	CL54	EJ10601610	ELECT 10µF 16V
RL11	GD05750160	1/6W 75 Ω ±5%	CL55	EJ10601610	ELECT 10μF 16V
RL15	GD05750160	1/6W 75 Ω ±5%	CL56	EJ10601610	ELECT 10µF 16V
RL17	GD05104160	1/6W 100K Ω ±5%	CL57	EJ10601610	ELECT 10µF 16V
RL18	GD05104160	1/6W 100K Ω ±5%	CL58	EJ10601610	ELECT 10µF 16V
RL19	GD05472160	1/6W 4.7K Ω ±5%	CL59	EJ10601610	ELECT 10μF 16V
RX51	GD05333160	1/6W 33K Ω ±5%	CL60	EJ10601610	ELECT 10μF 16V
RX52	GD05221160	1/6W 220 Ω ±5%	CL61	EJ10601610	ELECT 10µF 16V
RX53	GD05105160	1/6W 1M Ω ±5%	CL62	EJ10601610	ELECT 10µF 16V
RX54	GD05105160	1/6W 1M Ω ±5% B	CL63	EJ10601610	ELECT 10μF 16V
RX55	GD05103160	1/6W 10K Ω ±5%	CL64	EJ10601610	ELECT 10µF 16V
RX56	GD05103160	1/6W 10K Ω ±5%	CL65	DD38104010	CERAMIC 0.1μF +80% -20%
RX57 RX59	GD05103160	1/6W 10K Ω ±5%	CL66	DD38104010	CERAMIC 0.1µF +80% -20%
RX60	GD05221160	1/6W 220 Ω ±5%	CL67	DD38104010	CERAMIC 0.1µF +80% -20%
RX61	GD05152160 GD05682160	1/6W 1.5K Ω ±5% 1/6W 6.8K Ω ±5%	CL68	DD38104010	CERAMIC 0.1μF +80% -20%
RX62	GD05082160 GD05102160	1/6W 6.8K Ω ±5% 1/6W 1K Ω ±5%	CL69	DD38104010	CERAMIC 0.1μF +80% -20%
RX65	GD05102160	1/6W 1KΩ ±5%	CL70	DD38104010	CERAMIC 0.1μF +80% -20%
RX66	GD05102160	1/6W 1K Ω ±5%	CL71	EA10700610	ELECT 100μF 6.3V
RX67	GD05104160	1/6W 100K Ω ±5%	CL72	DK18103310	CERAMIC 0.01μF +80% -20%
RX68	GD05223160	1/6W 22K Ω ±5%	CL73	DK18103310	CERAMIC 0.01μF +80% -20%
RX69	GD05471160	1/6W 470 Ω ±5%	CL74	EA10700610	ELECT 100μF 6.3V
	G. D. G. T. T. T. G. G.	17044 470 22 2570	CL75	EA10700610	ELECT 100μF 6.3V
		INTEGRATED CIRCUITS	CL76	DK18103310	CERAMIC 0.01μF +80% -20%
QL01	HC10275030	IC LC7824 Analogue Switch	CL77	DK18103310	CERAMIC 0.01μF +80% -20%
QL02	HC10275030	IC LC7824 Analogue Switch	CL78	EA10700610	ELECT 100μF 6.3V
QL03	HC10046170	IC MC14576 Dual Video AMP	CL79	DK18103310	CERAMIC 0.01μF +80% -20%
QL04	HC12233090	IC NJM2233BD			DEGIGTORS
		Single Video AMP	DI C1	CD05400400	RESISTORS
QX60	HC10328030	IC LC74760-9004 OSD LSI	RL51 RL52	GD05100160	1/6W 10 Ω ±5%
QX63	HC10141090	IC NJM2267D Dual Video AMP	RL52	GD05100160	1/6W 10 Ω ±5%
				GD05100160	1/6W 10 Ω ±5%
		TRANSISTORS	RL54	GD05100160	1/6W 10 Ω ±5%
QX61	HT30001000	2SC536SP	RL55	GD05820160	1/6W 82 Ω ±5%
QX62	BA20002000	DIGITAL DTC144ES/UN4213	RL56	GD05820160	1/6W 82 Ω ±5%
	HT30001000	2SC536SP	RL57 RL58	GD05820160	1/6W 82 Ω ±5%
			RL58 RL59	GD05820160 GD05820160	1/6W 82 Ω ±5%
		DIODES	RL59		1/6W 82 Ω ±5%
DL01	HD20002000	1SS176		GD05820160	1/6W 82 Ω ±5%
	HD20002000	1SS176	RL61 RL62	GD05820160 GD05820160	1/6W 82 Ω ±5%
DL03	HD20002000	1SS176		GD05820160 GD05750160	1/6W 82 Ω ±5% 1/6W 75 Ω ±5%
DL04	HD20002000	1SS176	RL64	GD05750160 GD05750160	
	HD20002000	1SS176	11204	GD03730100	1/6W 75 Ω ±5%
DL06	HD20002000	1SS176			
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Ref. No.	Part. No.	<u>Description</u>	Ref. No.	<u>Part. No.</u>	<u>Description</u>
RL65	GD05750160	1/6W 75 Ω ±5%	WL01	YB00152110	CONNECTIVE CORD, 1P
RL66	GD05750160	1/6W 75 Ω ±5%	****	1200102110	CONTROL COMB, II
RL67	GD05750160	1/6W 75 Ω ±5%			
RL68	GD05750160	1/6W 75 Ω ±5%	PNSA	SOK DONTER	T P.C. BOARD (AVR80MK II)
RL69	GD05104160	1/6W 100K Ω ±5%	r 1404-		/I F.U. DUAND (AVNOUNKIL)
RL70	GD05104160	$1/6W$ 100K Ω ±5%			CAPACITORS
RL71	GD05104160	1/6W 100K Ω ±5%	CN81	EJ10505010	ELECT 1μF 50V
RL72 RL73	GD05104160	1/6W 100K Ω ±5% 1/6W 100K Ω ±5%	CN82	EJ10505010	ELECT 1μF 50V
RL73	GD05104160 GD05104160	1/6W 100K Ω ±5% 1/6W 100K Ω ±5%	CN83	DD38104010	CERAMIC 0.1μF +80% -20%
111174	GD03104100	1/0VV 100K 12 ±3%			
		INTEGRATED CIRCUITS	DNIGO	OD05470400	RESISTORS
QL51	HC10275030	IC LC7824 Analogue Switch	RN83 RN84	GD05473160 GD05473160	1/6W 47K Ω ±5% 1/6W 47K Ω ±5%
QL52	HC10275030	IC LC7824 Analogue Switch	RN85	GD05104160	1/6W 100K Ω ±5%
QL53	HC10275030	IC LC7824 Analogue Switch	RN86	GD05103160	1/6W 10K Ω ±5%
QL54	HC10275030	IC LC7824 Analogue Switch	RN87	GD05473160	1/6W 47KΩ ±5%
QL55 QL56	HC10046170	IC MC14576 Dual Video AMP	RN88	GD05473160	1/6W 47K Ω ±5%
QL56 QL57	HC10046170 HC10046170	IC MC14576 Dual Video AMP IC MC14576 Dual Video AMP			
QL37	HC10046170	IC WIC14576 Dual Video AIVIP			INTEGRATED CIRCUITS
		MISCELLANEOUS	QN84	HC10042050	IC TA7317P Over Load Protector
JL51	YT02021320	TERMINAL, 2P			TRANSISTORS
JL52	YT02021320	TERMINAL, 2P	QN81	BA10007210	TRANSISTORS DIGITAL DTA114ES
JL53	YT02030350	TERMINAL, 3P	QN82	HT322402A0	2SC2240 (GR, BL)
JL54	YP06020600	PLUG, 10P	QN83	HT322402A0	2SC2240 (GR, BL)
JL55	YL01010140	TERMINAL GND			
	DI GALATI	X IN P.C. BOARD	DN81	HD20002000	DIODES 1SS176
		A (N.)	DN82	HD20002000	1SS176
		CAPACITORS	5.102	112200200	100170
CL91	EJ10601610	ELECT 10μF 16V			MISCELLANEOUS
CL92	EJ22601610	ELECT 22μF 16V	JN81	YJ06019130	JACK, 13P
CL93	EJ10601610	ELECT 10μF 16V	JN82	YP06007130	PLUG, 3P
CL94 CL95	EJ10601610	ELECT 10µF 16V			
CL95	DD38104010 DD38104010	CERAMIC 0.1μF +80% -20% CERAMIC 0.1μF +80% -20%			
CL97	DK16221300	CERAMIC 220PF ±10% (B) [MOMS]	J	PPIA-SURHO	UND AMP P.C. BOARD
CL97	DK16102300	CERAMIC 1000PF ±10% (B) (AVR80)			CAPACITORS
CL98	DK16221300	CERAMIC 220PF ±10% B [MOMS]	CP01	DK16102300	CERAMIC 1000PF ±10%
CL98	DK16102300	CERAMIC 1000PF ±10% (B) (AVR80)	CP02	DK16102300	CERAMIC 1000PF ±10%
		DECISIONS	CP03	EQ10606390	ELECT 10μF 63V
RL91	GD05100160	RESISTORS 1/6W 10 Ω ±5%	CP04	EQ10606390	ELECT 10μF 63V
RL92	GD05750160	1/6W 75 Ω ±5%	CP05	EA10701610	ELECT 100μF 16V
RL93	GD05750160	1/6W 75 Ω ±5%	CP06	EA10701610	ELECT 100µF 16V
RL94	GD05750160	1/6W 75 Ω ±5%	CP07 CP07	DD11100300 DD10030300	CERAMIC 10PF ±0.5PF (B) CERAMIC 3PF ±0.25PF (B)
RL95	GD05100160	1/6W 10 Ω ±5%	CP08	DD1110030300	CERAMIC 10PF ±0.5PF IB
RL96	GD05100160	1/6W 10 Ω ±5%	CP08	DD10030300	CERAMIC 3PF ±0.25PF BK
RL97	GD05102160	1/6W 1K Ω ±5% [B [MOMS]	CP09	EJ22405010	ELECT 0.22μF 50V
RL98 RU06	GD05102160	1/6W 1K Ω ±5% (B) [MOMS] 1/6W 3.3K Ω ±5%	CP10	EJ22405010	ELECT 0.22μF 50V
RU08	GD05332160 GD05682160	1/6W 3.3K Ω ±5% 1/6W 6.8K Ω ±5%	CP11	EJ22405010	ELECT 0.22μF 50V
RU10	GD05103160	1/6W 10K Ω ±5%	CP12	EJ22405010	ELECT 0.22μF 50V
RU38	GD05151160	1/6W 150 Ω ±5%	CP13 CP14	EA10706310	ELECT 100µF 63V
			CP14 CP15	EA10606310 EA10706310	ELECT 10μF 63V ELECT 100μF 63V
		DIODES	CP16	EA10606310	ELECT 10μF 63V
DU46	HI10095320	L.E.D. LT3K44B (GRN)	CP17	EJ22601010	ELECT 22μF 10V
DU47	HI10095320	L.E.D. LT3K44B (GRN)	CP21	DD15470300	CERAMIC 47PF ±5% (B)
		MISCELLANEOUS	CP22	DD15470300	CERAMIC 47PF ±5% IB
JL91	BY04040020	TERMINAL, AUX / S-VIDEO IN			RESISTORS
JL92	YP06007260	PLUG, 8P	RP01	GD05102160	1/6W 1K Ω ±5% (B)
JU05	YJ06018040	JACK, 4P	RP01	GD05471160	1/6W 470 Ω ±5% BK
SU07	SP01011280	PUSH SWITCH, TACT	RP02	GD05102160	1/6W 1KΩ ±5% B
SU09 SU11	SP01011280	PUSH SWITCH, TACT	RP02	GD05471160	1/6W 470 Ω ±5% BK
3011	SP01011280	PUSH SWITCH, TACT	RP03	GD05473160	1/6W 47K Ω ±5%
			RP04	GD05473160	1/6W 47KΩ ±5%
			RP05 RP06	GD05563160 GD05563160	1/6W 56K Ω ±5% 1/6W 56K Ω ±5%
			111-00	GD00000100	1/6W 56K Ω ±5%

Ref. No	o. <u>Part. No.</u>	Des	cription	Ref. No.	Part. No.	Des	cription
RP07	GD05182160	1/6W 1.8K	Ω ±5%	CS19	DD38104010	CERAMIC ().1μF +80% -20%
RP08	GD05182160	1/6W 1.8K		CS21	DD38104010		
RP09	GD05513160	1/6W 51K		CS22	DD38104010		0.1μF +80% -20%
RP10	GD05513160	1/6W 51K		CS23	DK16151300	CEDAMIC 4	0.1μF +80% -20%
▲RP11	GO10222030	3W 0.22		CS24	DK16151300		50PF ±10% (B)
▲RP12	GO10222030	3W 0.22		CS25			50PF ±10% (B)
▲ RP13	GG05102160	1/6W 1K			DK16151300		50PF ±10% (B)
▲ RP14	GG05102160	1/6W 1K		CS26	DK16151300		50PF ±10% (B)
RP15	GD05102160			CS27	DK16221300	CERAMIC 22	20PF ±10% 📵
RP16	GD05102160 GD05102160	1/6W 1K 1/6W 1K		CS28	DK16221300		20PF ±10% 📵
RP17	GD05102160 GD05273160			CS29	DK16151300		50PF ±10% 📵
RP18	GD05273160 GD05273160			CS30	DK16151300	CERAMIC 15	50PF ±10% 📵
		1/6W 27K		CS31	DK16221300		20PF ±10% 🔞
RP19	GD05223160	1/6W 22K		CS32	DK16221300	CERAMIC 22	20PF ±10% 📵
RP20	GD05223160	1/6W 22K		CS33	DK16221300		20PF ±10% (B)
ARP21	GA05100010	1W 10:		CS34	DK16221300	CERAMIC 22	20PF ±10% (B)
▲RP22	GA05100010	1W 10	· · · · · · · · · · · · · · · · · · ·	CS35	DK16221300		20PF ±10% (B)
RP23	GD05221160	1/6W 220		CS36	DK16221300		20PF ±10% (B)
RP23	GD05181160	1/6W 180		CS37	DK16221300	CERAMIC 22	20PF ±10% 📵
RP24	GD05221160	1/6W 220		CS38	DK16221300	CERAMIC 22	20PF ±10% (B)
RP24	GD05181160	1/6W 180 s	Ω ±5% BN				
▲RP25	GG05101160	1/6W 100 s		•		RESISTORS	
▲RP26	GG05101160	1/6W 100 s		RS01	GD05473160	1/6W 47K	Ω ±5%
RP27	GD05682160	1/6W 6.8K		RS02	GD05473160	1/6W 47K	
RP28	GD05333160	1/6W 33K		RS03	GD05473160	1/6W 47K 9	
RP29	GD05100160	1/6W 100 s		RS04	GD05473160	1/6W 47K 9	
RP99	GG05100140	1/4W 10 9	Ω ±5%	RS05	GD05473160	1/6W 47K 9	
				RS06	GD05473160	1/6W 47K 9	
		INTEGRATED C	RCUITS	RS07	GD05102160	1/6W 1K 9	
▲ QP01	HC10357030	IC STK401-140)	RS08	GD05102160	1/6W 1K (
		AF Power A	MP (2ch)	RS09	GD05102160	1/6W 1K (
				RS10	GD05102160	1/6W 1K (
		TRANSISTORS		RS11	GD05102160	1/6W 1K (
QP02	HT322402A0	2SC2240 (GR, B	L)	RS12	GD05102160	1/6W 1K (
QP03	HT322402A0	2SC2240 (GR, B	L)	RS13	GD05473160	1/6W 47K 0	
QP04	HT109702A0	2SA970 (GR, BL)		RS14	GD05473160	1/6W 47K (
				RS15	GD05473160	1/6W 47K (
		DIODES		RS16	GD05473160	1/6W 47K (
DP01	HD20027010	HSS81TD		RS17	GD05473160	1/6W 47K C	
DP02	HD20027010	HSS81TD		RS18	GD05473160	1/6W 47K Ω	
				RS19	GD05473160	1/6W 47K £	
		COILS		RS20	GD05473160	1/6W 47K C	
LP01	ML08010030	AIR, SPK CHOC		RS21	GD05102160	1/6W 1K \$	
LP02	ML08010030	AIR, SPK CHOCK	(RS22	GD05102160	1/6W 1K C	
				RS23	GD05473160	1/6W 47K C	
		MISCELLANEOU	IS	RS24	GD05473160	1/6W 47K C	
JP01	YP06006930	PLUG, 3P		RS25	GD05473160	1/6W 47K Ω	
				RS26	GD05473160	1/6W 47K C	
WP03	YB00170870	CONNECTIVE CO	ORD, 1P 📵	RS27	GD05102160	1/6W 1K C	
			_	RS28	GD05102160	1/6W 1K Ω	
ı	PS04-ALIDIO I	UNCTION P.C.	ROAPD	RS29	GD05104160	1/6W 100K Ω	
		J. J	-VAUL	RS30	GD05104160	1/6W 100K Ω	
		CAPACITORS		RS31	GD05104160	1/6W 100K Ω	
CS01	EJ10601610		0μF 16V	RS32	GD05104160	1/6W 100K Ω	
CS02	EJ10601610		ομΓ 16V Ομ Γ 16 V	RS33	GD05104160	1/6W 100K Ω	
CS03	EJ10601610		ομι 16V 0μF 16V	RS34	GD05104160	1/6W 100K Ω	
CS04	EJ10601610		ομι 16V 0μF 16V	RS37	GD05182160	1/6W 1.8K Ω	
CS05	EJ10601610		υμε 16V ΟμΕ 16V	RS38	GD05182160	1/6W 1.8K Ω	
CS06	EJ10601610			RS39	GD05103160	1/6W 10K Ω	
CS07	EJ47502510		0μF 16V 7μF 25V	RS40	GD05103160	1/6W 10KΩ	
CS08	EJ47502510 EJ47502510		7μΓ 25V 7μF 25V			1,011 101/22	±0/0
CS09	EA10701610		/μF 25V 0μF 16V			INTEGRATED CI	RCUITS
CS10	EA10701610			QS01	HC10008090		Dual OP AMP
CS10			0μF 16V	QS02	HC10008090	IC NJM4558DD	
CS11	EJ47502510		7μF 25V	QS03	HC10008090	IC NJM4558DD	
	EJ47502510		7μF 25V	QS05	HC10008090		
CS13	EA10701610		OμF 16V	QS11	HC10308030		
CS14	EA10701610		OμF 16V	QS11	HC10308030	IC LC78211 IC LC78213	Analogue Switch
CS15	EJ47502510		7μF 25V	QS12 QS13	HC10008090		Analogue Switch
CS16	EJ47502510		7μF 25V	GOIO	11010000090	IO INJIVI4558DD	Dual OP AMP
CS17	EJ10601610		DμF 16V				
CS18	EJ10601610	ELECT 10	DμF 16V				
			*				

Ref. No.	Part. No.	<u>De</u> :	<u>scription</u>	Ref. No.	Part. No.		Descripti	<u>on</u>	
		TRANSISTORS	3	CS95	DK16151300	CERAMIC	150PF	±10%	æ
QS07	HT421442A0	2SD2144S (U, 1		CS96	DK16151300	CERAMIC			
QS08	HT421442A0	2SD2144S (U, V	•						
QS09	BA20001000		114ES	2054	0000	RESISTO			
QS10	BA10001000	DIGITAL DTA	114ES	RG51	GD05473160	1/6W	47K Ω	±5%	
		MISCELLANEC	ous	RG52 RG53	GD05473160 GD05471160	1/6W 1/6W	47K Ω 470 Ω	±5%	
JS01	YT02060460		RCA PIN JACK	RG54	GD05471160	1/6W	470 Ω 470 Ω	±5% ±5%	
JS02	YT02040940		RCA PIN JACK	RG55	GD05473160	1/6W	476 Ω	±5%	
JS03	YJ06030570	JACK, 16P		RG56	GD05473160	1/6W	47K Ω	±5%	
JS04	YL01010140	TERMINAL, GN	ID	RG57	GD05104160	1/6W	100K Ω	±5%	
				RG58	GD05104160	1/6W	100K Ω	±5%	
				RG59	GD05334160		330K Ω	±5%	
PS	354-V-AUDIO	FUNCTION P	.C. BOARD	RG60 RG61	GD05334160		330K Ω	±5%	
		0404017000		RG62	GD05152160 GD05152160	1/6W 1/6W	1.5K Ω 1.5K Ω	±5% ±5%	
CG51	EJ47502510	CAPACITORS ELECT	4.7μF 25V	RG63	GD05132160	1/6W	4.7K Ω	±5%	
CG52	EJ47502510		4.7μF 25V 4.7μF 25V	RG64	GD05472160	1/6W	4.7K Ω	±5%	
CG55	EJ47502510		4.7μF 25V	RG65	GD05331160	1/6W	330 Ω	±5%	
CG56	EJ47502510		4.7μF 25V	RG66	GD05331160	1/6W	330 Ω	±5%	
CG57	EJ47502510	ELECT	4.7μF 25V	RG67	GD05473160	1/6W	$47K\Omega$	±5%	
CG58	EJ47502510		4.7μF 25V	RG68	GD05473160	1/6W	47K Ω	±5%	
CG59	EJ47502510		4.7μF 25V	RG69 RG70	GD05103160	1/6W	10KΩ	±5%	
CG60	EJ47502510		4.7μF 25V	RG71	GD05103160 GD05471160	1/6W 1/6W	10K Ω 470 Ω	±5% ±5%	
CG61 CG62	DK16101300 DK16101300		00PF ±10% (B) 00PF ±10% (B)	RG72	GD05471160	1/6W	470 Ω	±5%	
CG63	EJ47502510		4.7μF 25V	RS51	GD05473160	1/6W	47K Ω	±5%	
CG64	EJ47502510		4.7μF 25V	RS52	GD05473160	1/6W	47ΚΩ	±5%	
CS51	EJ10601610		10μF 16V	RS53	GD05473160	1/6W	47K Ω	±5%	
CS52	EJ10601610		10μF 16V	RS54	GD05473160	1/6W	47K Ω	±5%	
CS53	EJ10601610	ELECT	10μF 16V	RS55 RS56	GD05473160	1/6W	47K Ω	±5%	
CS54	EJ10601610	ELECT	10μF 16V	RS57	GD05473160 GD05473160	1/6W 1/6W	47K Ω 47K Ω	±5% ±5%	
CS55 CS56	EJ10601610 EJ10601610		10μF 16V 10μF 16V	RS58	GD05473160	1/6W	47KΩ	±5%	
CS57	EJ10601610		10μF 16V	RS59	GD05102160	1/6W	1ΚΩ	±5%	
CS58	EJ10601610		10μF 16V	RS60	GD05102160	1/6W	1ΚΩ	±5%	
CS59	EJ47502510		4.7μF 25V	RS61	GD05102160	1/6W	1ΚΩ	±5%	
CS60	EJ47502510		4.7μF 25V	RS62	GD05102160	1/6W	1ΚΩ	±5%	
CS61	DD38104010		0.1μF +80% -20%	RS63 RS64	GD05102160 GD05102160	1/6W 1/6W	1KΩ	±5%	
CS62 CS63	EA10701610 EA10701610		00μF 16V	RS65	GD05102160	1/6W	1ΚΩ 1ΚΩ	±5% ±5%	
CS65	EA10701610		00μF 16V 00μF 16V	RS66	GD05102160	1/6W	1ΚΩ	±5%	
CS66	EA10701610		00μF 16V	RS67	GD05473160	1/6W	47K Ω	±5%	
CS68	DD38104010		0.1μF +80% -20%	RS68	GD05473160	1/6W	$47K\Omega$	±5%	
CS69	DD38104010		0.1μF +80% -20%	RS69	GD05473160	1/6W	47K Ω	±5%	
CS70	DD38104010		0.1μF +80% -20%	RS70 RS71	GD05473160	1/6W	47KΩ	±5%	
CS71	DK16151300		50PF ±10% IB	RS72	GD05473160 GD05473160	1/6W 1/6W	47K Ω 47K Ω	±5% ±5%	
CS72 CS73	DK16151300 DK16151300	CERAMIC 1 CERAMIC 1	50PF ±10% (B) 50PF ±10% (B)	RS73	GD05473160	1/6W	47KΩ	±5%	
CS74	DK16151300		50PF ±10% (B)	RS74	GD05473160	1/6W		±5%	
CS75	DK16151300		50PF ±10% (B)	RS75	GD05104160	1/6W		±5%	
CS76	DK16151300	CERAMIC 1	50PF ±10% 📵	RS76	GD05104160		100K Ω	±5%	
CS77	DK16151300		50PF ±10% (B)	RS77	GD05102160	1/6W	1ΚΩ	±5%	
CS78	DK16151300		50PF ±10% (B)	RS78 RS79	GD05102160	1/6W		±5%	
CS79 CS80	DK16221300		20PF ±10% (B)	RS80	GD05473160 GD05473160	1/6W 1/6W		±5% ±5%	
CS81	DK16221300 DK16221300		20PF ±10% (B) 20PF ±10% (B)	RS81	GD05473160	1/6W		±5%	
CS82	DK16221300		20PF ±10% IB	RS82	GD05473160	1/6W		±5%	
CS83	DK16221300	CERAMIC 2	20PF ±10% (B)	RS83	GD05102160	1/6W		±5%	
CS84	DK16221300		20PF ±10% IB	RS84	GD05102160	1/6W		±5%	
CS85	DK16221300	CERAMIC 2	20PF ±10% 🔞	RS85	GD05104160			±5%	
CS86	DK16221300		20PF ±10% 📵	RS86	GD05104160			±5%	
CS87	DK16221300		20PF ±10% (B)	RS93 RS94	GD05473160 GD05473160	1/6W		±5%	
CS88 CS89	DK16221300 DK16221300		20PF ±10% (B)	11034	GD00470100	1/6W	47ΚΩ	±5%	
CS90	DK16221300 DK16221300		20PF ±10% (B) 20PF ±10% (B)			INTEGRAT	ED CIRCUI	TS	
CS93	EJ10601610		10μF 16V	QG55	HC10008090		558DD Du		MP
CS94	EJ10601610		10μF 16V	QG56	HC10008090	IC NJM4	558DD Du		
				QG57	HC10304050	IC TC92			
						⊨lectri	c Volume (2	ch)	

Ref. No.	Part. No.	<u>Description</u>	Ref. No.	Part. No.	Description
QS51	HC10008090	IC NJM4558DD Dual OP AMP	RU34	GD05103160	1/CM 10V O +E9/ /AV/DOOM/CT)
QS52	HC10008090	IC NJM4558DD Dual OP AMP	RU36	GD05151160	1/6W 10K Ω ±5% (AVR80MK II) 1/6W 150 Ω ±5%
QS53	HC10008090	IC NJM4558DD Dual OP AMP	RU37	GD05151160	1/6W 150 Ω ±5%
QS54	HC10008090	IC NJM4558DD Dual OP AMP	RU39	GD05471160	1/6W 470 Ω ±5%
QS55	HC10008090	IC NJM4558DD Dual OP AMP	RU40	GD05473160	1/6W 47K Ω ±5%
QS56	HC10308030	IC LC78211 Analogue Switch	RU41	GD05472160	1/6W 4.7K Ω ±5%
QS57	HC10309030	IC LC78212 Analogue Switch	RU42	GD05472160	1/6W 4.7K Ω ±5%
QS91	HC10008090	IC NJM4558DD Dual OP AMP	RU43	GD05182160	1/6W 1.8K Ω ±5%
			RU44	GD05182160	1/6W 1.8K Ω ±5%
		TRANSISTORS	RU45	GD05473160	1/6W 47K Ω ±5%
QG51	HT421442A0	2SD2144S, U, V	RU46	GD05103160	1/6W 10K Ω ±5%
QG52	HT421442A0	2SD2144S, U, V			
QG59 QG60	HT421442A0 HT421442A0	2SD2144S, U, V 2SD2144S, U, V	QU01	HU260JT120	INTEGRATED CIRCUITS MICROPROCESSOR
QS59	HT421442A0	2SD2144S, U, V	QU18	HC712500B0	TMP87CP71F IC 74HC125
QS60	HT421442A0	2SD2144S, U, V	40.0	11071200000	Quad Bus Buffer Gates
QS61	BA10001000	DIGITAL DTA114ES			dada bas barrer dates
QS62	BA20001000	DIGITAL DTC114ES			TRANSISTORS
			QU02	BA10007210	DIGITAL DTA114ES
		MISCELLANEOUS	QU03	HT30001000	2SC536SP
JS51	YT02060460	TERMINAL, 6P R CA PIN JACK	QU04	BA20012210	DIGITAL DTC144ES
JS52	YT02080110	TERMINAL, 8P R CA PIN JACK	QU05	BA20010210	DIGITAL DTC114ES
JS54	YJ06030580	JACK, 20P	QU07	HT30001000	2SC536SP
			QU08	BA20012210	DIGITAL DTC144ES
***************************************			QU09	BA20012210	DIGITAL DTC144ES
	PU04-FR	ONT P.C. BOARD	QU10	BA10010210	DIGITAL DTA144ES
***************************************			QU11	BA10003210	DIGITAL DTA114TS
		CAPACITORS	QU12	BA10007210	DIGITAL DTA114ES
CU01	DA17223110	CERAMIC 0.022μF ±20%	QU14	BA10010210	DIGITAL DTA144ES
CU02	EJ47601010	ELECT 47μF 10V	QU15	BA20012210	DIGITAL DTC144ES
CU03	EJ22700610	ELECT 220μF 6.3V	QU16	HW10001210	PHOTO UNIT, IR RECIVER
CU04	DA17223110	CERAMIC 0.022μF ±20%	QU17	BA10007210	DIGITAL DTA114ES
CU05	DA17104110	CERAMIC 0.1μF ±20%	QU19	HT30001000	2SC536SP (AVR80MKII)
CU07	EX22300530	BIG ELECT 0.22F 5.5V	QU20	HT30001000	2SC536SP (AVR80MKII)
CU10	DA17223110	CERAMIC 0.022μF ±20%	QU21	HT10001000	2SA608SP (AVR80MKII)
CU11	DA17223110	CERAMIC 0.022μF ±20%			DIODES
CU12 CU13	DA17223110	CERAMIC 0.022μF ±20%	DU01	HD20029210	1SS132 (AVR80MKII)
CU13	DD38104010 DK18103310	CERAMIC 0.1µF +80% -20% CERAMIC 0.01µF +80% -20%	DU01	HD20002000	1SS176 (AVR80)
CU15	DK18103310	CERAMIC 0.01µF +80% -20% IB	DU02	HD20029210	1SS132 (AVR80MKII)
0010	B1010100010	ουτινικίο οιστρί +00/8 -20/8 π	DU02	HD20002000	1SS176 (AVR80)
		RESISTORS	DU03	HD20029210	1SS132 (AVR80MKⅡ)
RU01	GD05152160	1/6W 1.5K Ω ±5%	DU03	HD20002000	1SS176 (AVR80)
RU02	GD05152160	1/6W 1.5K Ω ±5%	DU04	HD20029210	1SS132 (AVR80MKⅡ)
RU03	GD05222160	1/6W 2.2K Ω ±5%	DU04	HD20002000	1SS176 (AVR80)
RU04	GD05222160	1/6W 2.2K Ω ±5%	DU05	HD20002000	1SS176
RU05	GD05332160	1/6W 3.3K Ω ±5%	DU06	HD20002000	1SS176
RU07	GD05682160	1/6W 6.8K Ω ±5%	DU07	HD20002000	1SS176
RU09	GD05103160	1/6W 10K Ω ±5%	DU08	HD20002000	1SS176
RU11	GD05473160	$1/6W$ 47K Ω ±5%	DU09	HD20002000	1SS176
RU14	GD05103160	1/6W 10K Ω ±5%	DU10	HD20002000	1SS176
RU15	GD05103160	1/6W 10K Ω ±5%	DU14	HD20029210	1SS132
RU16	GD05103160	1/6W 10K Ω ±5%	DU17 DU19	HD20029210 HD20002000	1SS132 (B)
RU17	GD05473160	1/6W 47K Ω ±5%	DU19	HD20002000	1SS176
RU18	GD05183160	1/6W 18K Ω ±5%	DU21	HD20002000	1SS176 1SS176
RU19	GD05103160	1/6W 10K Ω ±5%	DU22	HI10099320	L.E.D. GL3ED8
RU20 RU22	GD05473160	1/6W 47K Ω ±5%	DU23	HD20002000	1SS176
	GD05100160	1/6W 10 Ω ±5%	DU24	HD20002000	1SS176
RU23 RU24	GD05101160 GD05103160	1/6W 100 Ω ±5% 1/6W 10K Ω ±5%	DU25	HD20002000	1SS176
RU25	GD05103160 GD05221160	1/6W 220 Ω ±5%	DU26	HD20002000	1SS176
RU26	GD05103160	1/6W 10K Ω ±5%	DU27	HD20002000	1SS176
RU27	GD05103160	1/6W 10KΩ ±5%	DU28	HD20002000	1SS176
RU28	GD05331160	1/6W 330 Ω ±5%	DU29	HI10062320	L.E.D. LT3D8B (RED)
RU29	GD05103160	1/6W 10K Ω ±5%	DU30	HI10095320	L.E.D. LT3K44B (GRN)
RU30	GD05103160	1/6W 10KΩ ±5%	DU31	HI10095320	L.E.D LT3K44B (GRN)
RU31	GD05473160	1/6W 47K Ω ±5% (AVR80MK II)	DU32	HI10095320	L.E.D. LT3K44B (GRN)
RU32	GD05103160	1/6W 10K Ω ±5% (AVR80MK II)	DU33	HI10095320	L.E.D. LT3K44B (GRN)
RU33	GD05473160	1/6W 47K Ω ±5% (AVR80MK II)	DU34	HI10095320	L.E.D. LT3K44B (GRN)
		,	DU35	HI10095320	L.E.D. LT3K44B (GRN)

10μF 16V

100μF 6.3V

220PF ±10% IB

220PF ±10% IB

220PF ±10% B

220PF ±10% IB

0.022μF ±20%

CERAMIC 0.022μF ±20%

CERAMIC 0.1µF +80% -20%

CERAMIC $0.1\mu F$ +80% -20%

CERAMIC 0.1µF +80% -20%

Ref. No.	Part. No.		Description	Ref. No.	Part. No.	<u>Description</u>	
DU36	HI10095320	L.E.D.	LT3K44B (GRN)			TRANSISTO	ORS
DU37	HI10095320	L.E.D	LT3K44B (GRN)	QU51	HT30001000	2SC536SP	
DU38	HI10095320	L.E.D.	LT3K44B (GRN)	QU52	HT30001000	2SC536SP	
DU39	HI10095320	L.E.D.	LT3K44B (GRN)	QU53	HT30001000	2SC536SP	(AVR80)
DU40	HI10095320	L.E.D.	LT3K44B (GRN)	QU54	HT30001000	2SC536SP	(AVR80)
DU41	HI10095320	L.E.D.	LT3K44B (GRN)				
DU42	HI10095320	L.E.D.	LT3K44B (GRN)			MISCELLA	NEOUS
DU43	HI10095320	L.E.D	LT3K44B (GRN)	JU51	YP06020740	PLUG, 4P	
DU44	HI10095320	L.E.D.	LT3K44B (GRN)	SU55	SR02010040	ROTARY SI	WITCH, MASTER VOL.
DU45	HI10095320	L.E.D.	LT3K44B (GRN)	***************************************		***************************************	***************************************
DU48 DU49	HD20002000	188176		PU94-	POWER SW	P.C. BOAR	D(AVR80MK]])
DU49 DU50	HD20002000	1SS176					······································
DU51	HD20002000 HD20002000	1SS176	(A)(DOOMET)			MISCELLAI	NEOUS
DU52	HD20002000		(AVR80MKII)	JU91	YP06006930	PLUG, 3P	
D032	11020002000	133170	(AVR80MKⅡ)	JU92	YP06006930	PLUG, 3P	
		MISCELL	ANEOUS	SU91	SP02011570	PUSH SWIT	CH, POWER
JU01	YJ07011240	JACK, 31					
JU02	YP06007170	PLUG, 7F		***************************************			
JU03	YJ06030640	JACK, 4F			PV04-DIRE	ECT IN P.C	.BOARD
JU04	YP06020550	PLUG, 4F				-	
JU06	YP06006930	•	P (AVR80MKII)			CAPACITO	
SU01	SP01011280		VITCH, TACT	CT04	DK18103310		.01μF +80% -20% 📵
SU02	SP01011280	PUSH SV	VITCH, TACT (B)	CT05	DK18103310		.01μF +80% -20% 📵
SU03	SP01011280	PUSH SV	VITCH, TACT	CV01	EJ10601610	ELECT	10μF 16V
SU04	SP01011280	PUSH SV	VITCH, TACT (B)	CV02	EJ10601610	ELECT	10μF 16V
SU05	SP01011280		VITCH, TACT	CV03	EJ10601610	ELECT	10μF 16V
SU06	SP01011280		VITCH, TACT (B)	CV04 CV05	EJ10601610	ELECT	10μF 16V
SU08	SP01011280		VITCH, TACT	CV05	EJ10601610 EJ10601610	ELECT ELECT	10μF 16V 10μF 16V
SU10	SP01011280		VITCH, TACT	CV07	DD38104010		0.1μF +80% -20%
SU12	SP01011280		VITCH, TACT (AVR80)	CV08	DD38104010	CERAMIC	0.1μF +80% -20%
SU13	SP01011280		VITCH, TACT	CV09	DF15104350	FILM	0.1μF ±5%
SU14 SU15	SP01011280		VITCH, TACT	CV10	DF15104350	FILM	0.1μF ±5%
SU15	SP01011280 SP01011280		VITCH, TACT	CV11	DF15104350	FILM	0.1μF ±5%
SU17	SP01011280		VITCH, TACT VITCH, TACT	CV12	DF15104350	FILM	0.1μF ±5%
SU18	SP01011280		VITCH, TACT	CV13	EJ10601610	ELECT	10μF 16V
SU19	SP01011280		/ITCH, TACT	CV14	EJ10601610	ELECT	10μF 16V
SU21	SP01011280		/ITCH, TACT	CV15	DK16101300	CERAMIC	100PF ±10% (B)
SU24	SP01011280		/ITCH, TACT	CV16	DK18103310		.01μF +80% -20% 📵
SU25	SP01011280		/ITCH, TACT	CV17	DK18103310		.01μF +80% -20% B
SU26	SP01011280		/ITCH, TACT	CV18	DK18103310		.01μF +80% -20% I B
SU27	SP01011280		/ITCH, TACT	CV19	EJ10601610	ELECT	10μF 16V
SU28	SP01011280		/ITCH, TACT	CV20	EJ10601610	ELECT	10μF 16V
SU29	SP01011280		/ITCH, TACT	CV21 CV22	EJ10601610	ELECT	10μF 16V
SU31	SP01011280		/ITCH, TACT	CV22	EJ10601610 DK16151300	CERAMIC	10μF 16V
SU32	SP01011280		/ITCH, TACT	CV23	DK16151300	CERAMIC CERAMIC	150PF ±10% B 150PF ±10% B
SU33	SP01011280		/ITCH, TACT	CV25	DK16151300	CERAMIC	150PF ±10% B
SU34	SP01011280		/ITCH, TACT	CV26	DK16151300	CERAMIC	150PF ±10% B
VU01	HQ31206060		UNIT, FIP12DM8R	CV27	DK16151300	CERAMIC	150PF ±10% IB
XU01	FQ08004010		RESONATOR	CV28	DK16151300	CERAMIC	150PF ±10% IB
		CST8,0M	П	CV31	EJ10601610	ELECT	10μF 16V
				CV32	EJ10601610	ELECT	10μF 16V
				CV33	EJ10601610	ELECT	10μF 16V
	PU54-MAST	EH YUL	Y.G. BUAHD	CV34	EJ10601610	ELECT	10μF 16V
		CADACIT	OBC	CV35	EJ10601610	ELECT	10μF 16V
		CAPACIT	UNO	CV36	E.110601610	FLECT	100 E 16V

CV36

CV37

CV38

CV39

CV40

CV41

CV42

CV43

CV44

CV45

CV46

EJ10601610

DA17223110

EJ10700610

DD38104010

DA17223110

DD38104010

DD38104010

DK16221300

DK16221300

DK16221300

DK16221300

ELECT

ELECT

CERAMIC

CERAMIC

CERAMIC

CERAMIC

CERAMIC

		CAPACITORS	
CU51	DA16101110	CERAMIC 100PF ±10%	
CU52	DA16101110	CERAMIC 100PF ±10%	
		RESISTORS	
RU51	GD05104160	1/6W 100K Ω ±5%	
RU52	GD05104160	1/6W 100K Ω ±5%	
RU53	GD05224160	1/6W 220K Ω ±5%	
RU54	GD05224160	1/6W 220K Ω ±5%	
RU55	GG05010140	1/6W 1 Ω ±5%	
RU57	GD05103160	1/6W 10K Ω ±5% (AVR80)	
RU58	GD05103160	1/6W 10K Ω ±5% (AVR80)	
		,	

Ref. No.	Part. No.	<u>Descript</u>	<u>tion</u>	Ref. No.	Part. No.	Description	
CV47	DK16221300	CERAMIC 220PF	±10% B	QT05	BA10007210	DIGITAL	DTA114ES
CV48	DK16221300		±10% 📵				
CV50	DK16101300		±10% 📵			DIODES	
CV97	DK16101300		±10% 📵	DV01	HD20002000	1SS176	
CV99	DK18103310	CERAMIC 0.01µF +	80% -20%	DV02	HD20002000	1SS176	
RT01	GD05271160	RESISTORS 1/6W 270 Ω ±	E0/	ITO4	V 144000500	MISCELLA	
RT02	GD05102160	1/6W 1KΩ ±		JT01 JT02	YJ11000500 YJ01004220	JACK, 8P JACK, MIN	
RT05	GD05271160	1/6W 270 Ω ±		JT02	YJ01004230	JACK, MIN	
RT07	GD05222160	1/6W 2.2K Ω ±		JT04	YP06003830	PLUG, 3P	
RT20	GD05220160	1/6W 22 Ω ±	5%	JV01	YT02011020		, 1P RCA PIN JACK 📵
RV01	GD05102160	1/6W 1K Ω ±		JV01	YT02010780		, 1P RCA PIN JACK
RV02	GD05102160	1/6W 1K Ω ±		JV02	YT02060540		, 6P RCA PIN JACK IB
RV03	GD05102160	1/6W 1K Ω ±		JV02	YT02060500		, 6P RCA PIN JACK 🕒
RV04 RV05	GD05102160	1/6W 1KΩ ±		JV04	YP06020940	PLUG, 12P	
RV06	GD05102160 GD05102160	1/6W 1KΩ ± 1/6W 1KΩ ±		JV05	YP06020940	PLUG, 12P	
RV07	GD05102100	1/6W 1KΩ± 1/6W 100KΩ±		JV06 JV07	YJ06030590 YP06020640	JACK, 24P	
RV08	GD05104160	1/6W 100K Ω ±		JV08	YP06006720	PLUG, 14P PLUG, 12P	
RV09	GD05104160	1/6W 100K Ω ±		JV09	YL01010140	TERMINAL	
RV10	GD05104160	1/6W 100K Ω ±		JV10	YP06020940	PLUG, 12P	
RV11	GD05104160	1/6W 100K Ω ±		JV11	YL01010140	TERMINAL	
RV12	GD05104160	1/6W 100K Ω ±		LV04	FM12223010	EMI FILTER	·
RV13	GD05104160	1/6W 100K Ω ±		LV05	FM12223010	EMI FILTER	₹
RV14 RV15	GD05104160	1/6W 100K Ω ±		LV06	FM12223010	EMI FILTER	
RV15	GD05104160 GD05104160	1/6W 100K Ω ± 1/6W 100K Ω ±		WV01	YB00040430	CONNECTI	VE CORD, 1P
	GD05104160	1/6W 100K Ω ±					
	GD05104160	1/6W 100K Ω ±			muine.		
	GD05104160	1/6W 100K Ω ±			PWU4-F	I.P P.C. B	UAHD
RV22	GD05104160	1/6W 100K Ω ±5	5%			CAPACITO	DC
	GD05153160	1/6W 15KΩ ±		CW01	DK18103310		0.01μF +80% -20% B
	GD05153160	1/6W 15KΩ ±5		CW02	DK18103310		0.01μF +80% -20% IB
	GD05153160 GD05153160	1/6W 15K Ω ±5 1/6W 15K Ω ±5		CW03	DK18103310	CERAMIC 0	0.01μF +80% -20% B
	GD05133160	1/6W 15KΩ ±5					_
	GD05223160	1/6W 22KΩ ±5		174704	V 104004040	MISCELLA	
RV29	GD05473160	1/6W 47K Ω ±5		JW01 JW02	YJ01004240 YP06010450	JACK, PHO	NE
	GD05473160	1/6W 47K Ω ±5	5%	WW01	YB00152110	PLUG, 5P	VE CORD, 1P
	GD05103160	1/6W 10K Ω ±5			1200102110	OCHITEOTI	VE COND, IF
	GD05103160	1/6W 10KΩ ±5	5%				
	GD05103160 GD05103160	1/6W 10K Ω ±5 1/6W 10K Ω ±5			PY04-CON	NECTEC	ROARD
	GD05562160	1/6W 5.6K Ω ±5					
	GD05562160	1/6W 5.6K Ω ±5				CAPACITO	RS
	GD05104160	1/6W 100K Ω ±5		CS91	EJ10601610	ELECT	10μF 16V
	GD05104160	1/6W 100K Ω ±5	i%	CS92	EJ10601610	ELECT	10μF 16V
	GD05473160	1/6W 47K Ω ±5		CY01 CY02	EJ47502510	ELECT	4.7μF 25V
	GD05473160	1/6W 47KΩ ±5		CY04	DD38104010 DD38104010	CERAMIC CERAMIC	0.1μF +80% -20% 0.1μF +80% -20%
	GD05473160 GD05473160	1/6W 47K Ω ±5 1/6W 47K Ω ±5		CY06	DD15470300	CERAMIC	47PF ±5% (B)
	GD05473160 GD05473160	1/6W 47KΩ ±5 1/6W 47KΩ ±5		CY07	DD15470300	CERAMIC	47PF ±5%
	GD05473160	1/6W 47KΩ ±5		CY08	DD15470300	CERAMIC	47PF ±5% BK
			,•	CY09	DD15470300	CERAMIC	47PF ±5%
		INTEGRATED CIRCU	ITS				.01μF +80% -20% B
QT04	HC713200A0	IC 74LS132		CY12	DD15470300	CERAMIC	47PF ±5%
OVO	1104000000	Quad 2input NAN			DD38104010 DK18103310	CERAMIC	0.1μF +80% -20%
	HC10008090	IC NJM4558DD Du		0113	PICTO 1000 10	CERAMIC	0.01μF +80% -20%
	HC10008090 HC10008090	IC NJM4558DD Du IC NJM4558DD Du				RESISTORS	3
	HC10309030		alogue Switch	RS91	GD05473160		47KΩ ±5%
	HC10008090	IC NJM4558DD Du	al OP AMP		GD05473160		47KΩ ±5%
	HC10310030		alogue Switch	RY01	GD05103160		10KΩ ±5%
	HC10008090	IC NJM4558DD Du					
		TDANGISTORS					
QT01	HW10006320	TRANSISTORS PHOTO UNIT PO	C-817				
	HW10006320		C-817				
'							

Ref. No.	Part. No.	Description	Ref. No.	Part. No.		Description
RY02	GD05103160	1/6W 10K Ω ±5%	JY04	YJ06030140	JACK, 14P	•
RY03	GD05103160	1/6W 10K Ω ±5%	JY05	YJ06030100	JACK, 10P	
RY04	GD05103160	1/6W 10K Ω ±5%	JY06	YP06020700	PLUG, 30F	
RY05	GD05103160	1/6W 10K Ω ±5%	JY07	YJ06030140	JACK, 14P	•
RY06	GD05103160	1/6W 10K Ω ±5%	JY08	YP06020690	PLUG, 24F	
RY07	GD05103160	1/6W 10K Ω ±5%	JY09	YJ07011240	JACK, 31P	•
RY08	GD05103160	1/6W 10K Ω ±5%	JY10	YP06006680	PLUG, 8P	
RY09	GD05103160	1/6W 10K Ω ±5%	JY11	YP06003830	PLUG, 3P	
RY10 RY11	GD05103160	1/6W 10K Ω ±5%				
RY12	GD05103160 GD05103160	1/6W 10K Ω ±5% 1/6W 10K Ω ±5%				
RY13	GD05103160	1/6W 10KΩ ±5%		P104-TU	JNER P.C.	BOARD
RY14	GD05103160	1/6W 10KΩ ±5%				
RY15	GD05103160	1/6W 10K Ω ±5%	C401	CT4000000	CAPACITO	
RY18	GD05472160	1/6W 4.7K Ω ±5%	CA01 CA02	CT12000200	TRIM.CAP.	
RY19	GD05472160	1/6W 4.7K Ω ±5%	CA02 CA03	DK18473310 DD15150300	CERAMIC	0.047μF +80% -20%
RY20	GD05103160	1/6W 10K Ω ±5%	CA03	DF15391550	CERAMIC FILM	15PF ±5% 390PF ±5%
RY21	GD05103160	1/6W 10K Ω ±5%	CA05	DD15470300	CERAMIC	47PF ±5%
RY22	GD05103160	1/6W 10K Ω ±5%	CA06	DK18103310	CERAMIC	0.01μF +80% -20%
RY23	GD05332160	1/6W 3.3K Ω ±5%	CA07	DK18103310		0.01μF +80% -20% B
RY24	GD05103160	1/6W 10K Ω ±5%	CA08	CT12000200	TRIM.CAP.	
RY25	GD05103160	1/6W 10K Ω ±5%	CA09	DD15150300	CERAMIC	15PF ±5% IB
RY26 RY27	GD05103160	1/6W 10K Ω ±5%	CA11	DD15680300	CERAMIC	68PF ±5% IB
RY28	GD05103160 GD05472160	1/6W 10K Ω ±5%	CA12	DD15151300	CERAMIC	150PF ±5% 🔞
RY29	GD05472160 GD05472160	1/6W 4.7K Ω ±5% 1/6W 4.7K Ω ±5%	CA13	DK18103310	CERAMIC	0.01μF +80% -20% 📵
RY30	GD05103160	1/6W 10K Ω ±5%	CA14	DK18103310		0.01μF +80% -20% 📵
RY31	GD05103160	1/6W 10K Ω ±5%	CA18	EJ47502510	ELECT	4.7μF 25V
RY32	GD05103160	1/6W 10K Ω ±5%	C201 C202	DK18103310	CERAMIC	0.01μF +80% -20%
RY33	GD05103160	1/6W 10K Ω ±5%	C202	DK18103310 DK18473310	CERAMIC	0.01μF +80% -20%
UY97	GD05102160	1/6W 1K Ω ±5% 📵	. C204	DK18473310	CERAMIC CERAMIC	0.047μF +80% -20% 0.047μF +80% -20%
		_	C205	EJ10505010	ELECT	1μF 50V
		INTEGRATED CIRCUITS	C206	EJ10601610	ELECT	10μF 16V
QY09	HC38115090	IC NJM78L15A Voltage Regulator	C207	EA10701610	ELECT	100μF 16V
QY10	HC10370050	IC TC9173P Port Expander	C208	DK18473310	CERAMIC	0.047µF +80% -20%
QY11 QY12	HC10250050 HC754100B0	IC TC9174P Port Expander IC 74HC541	C209	EJ10505010	ELECT	1μF 50V
QT 12	11075410060	IC 74HC541 Octal Buffer/Line Drivers	C210	DK18103310	CERAMIC	0.01μF +80% -20%
		Octal Bullet/Elife Brivers	C211	EJ22505010	ELECT	2.2μF 50V
		TRANSISTORS	C212	EJ10505010	ELECT	1μF 50V
QY01	BA10001000	DIGITAL DTA114ES	C213 C214	EJ47405010 EA47603510	ELECT ELECT	0.47μF 50V 47μF 35V
QY02	BA20002000	DIGITAL DTC144ES	C214	DK18473310	CERAMIC	47μF 35V 0.047μF +80% -20%
QY03	BA10001000	DIGITAL DTA114ES	C216	EA10701610	ELECT	100μF 16V
QY04	BA20002000	DIGITAL DTC144ES	C217	DK16332300	CERAMIC	3300PF ±10% (B)
QY05	BA10001000	DIGITAL DTA114ES	C217	DF15822350	FILM	8200PF ±5% BK
QY06	BA20002000	DIGITAL DTC144ES	C218	DK18103310	CERAMIC	0.01μF +80% -20%
QY07 QY08	BA10001000	DIGITAL DTA114ES	C219	EJ10601610	ELECT	10μF 16V
QY13	BA20002000 BA20002000	DIGITAL DTC144ES DIGITAL DTC144ES	C220	DK16222300	CERAMIC	2200PF ±10% (B)
QY14	BA10001000	DIGITAL DTC144ES DIGITAL DTA114ES	C220	DK16472300	CERAMIC	4700PF ±10% BK
QY15	BA20002000	DIGITAL DTC144ES	C222	DK16152300	CERAMIC	1500PF ±10%
		DIGITAL DIGITALS	C223	DK18103310	CERAMIC	0.01μF +80% -20%
		DIODES	C224 C225	DK18103310 DK18103310		0.01μF +80% -20% B
DY01	HD20002000	1SS176	C225 C226	DK18103310	CERAMIC CERAMIC	0.01μF +80% -20% 0.01μF +80% -20%
DY02	HD20002000	1SS176	C227	DK16272300	CERAMIC	2700PF ±10% BK
DY03	HD20002000	1SS176	C233	DK18103310	CERAMIC	0.01μF +80% -20%
	HD20002000	1SS176	C234	DK18103310	CERAMIC	0.01μF +80% -20%
	HD20002000	1SS176	C301	DF15333310	FILM	0.033μF ±5% B
DY06	HD20002000	1SS176	C301	DF15473310	FILM	0.047μF ±5% BK
	HD20002000	1SS176	C302	DF15333310	FILM	0.033μF ±5% 📵
	HD20002000 HD20002710	1SS176 1D3 1A/200V	C302	DF15473310	FILM	0.047μF ±5% B
	HD20002710	1SS176	C303	EJ10601610	ELECT	10μF 16V
	HD20002000	1SS176	C304	EJ10601610	ELECT	10μF 16V
	HD30361000	ZENER, 3.6V	C305	EJ47502510	ELECT	4.7μF 25V B
- · · ·			C306	EJ47502510	ELECT	4.7μF 25V B
		MISCELLANEOUS	C307	EJ10601610	ELECT	10μF 16V IB
JY01	YJ06030140	JACK, 14P	C308 C311	EJ10601610 EJ47502510	ELECT ELECT	10μF 16V (B 4.7μ F 25V
	YP06020670	PLUG, 16P	C311	EJ47502510 EJ47502510	ELECT	4.7μF 25V 4.7μF 25V
JY03	YP06020680	PLUG, 20P		_3552010		7.7 pt 204

Ref. No.	Part. No.	<u>Description</u>	Ref. No.	Part. No.	Description
C313	EJ10601610	ELECT 10μF 16V 📵	R306	GD05153160	1/6W 15K Ω ±5% (B)
C314	EA47603510	ELECT 47μF 35V IB	R307	GD05221160	1/6W 220 Ω ±5%
C315	DK16151300	CERAMIC 150PF ±10% IB	R308	GD05221160	1/6W 220 Ω ±5%
C316	DK16151300	CERAMIC 150PF ±10% IB	R309	GD05473160	1/6W 47K Ω ±5%
C317	DK16101300	CERAMIC 100PF ±10% IB	R310	GD05473160	1/6W 47K Ω ±5%
C318	DK16101300	CERAMIC 100PF ±10% IB	R311	GD05473160	1/6W 47K Ω ±5% B
C501	DD15470300	CERAMIC 47PF ±5%	R312	GD05473160	1/6W 47K Ω ±5% 🔞
C502	DD15470300	CERAMIC 47PF ±5%	R313	GG05221140	1/4W 220 Ω ±5% 🖪
C503	EA10700610	ELECT 100μF 6.3V	R501	GD05102160	1/6W 1K Ω ±5%
C504	DK18103310	CERAMIC 0.01μF +80% -20%	R502	GD05332160	1/6W 3.3K Ω ±5%
C505	EJ10505010	ELECT 1μF 50V	R503	GD05102160	1/6W 1K Ω ±5%
C506	EJ10405010	ELECT 0.1μF 50V	R504	GD05103160	$1/6W$ $10K\Omega \pm 5\%$
C507 C508	DK18103310	CERAMIC 0.01μF +80% -20%	R506	GD05102160	1/6W 1K Ω ±5%
C509	EA10701610	ELECT 100μF 16V CERAMIC 100PF ±10%	R507	GD05332160	1/6W 3.3K Ω ±5%
C510	DK16101300 DK16101300	CERAMIC 100PF ±10% CERAMIC 100PF ±10%	R508	GD05473160	1/6W 47K Ω ±5%
C510	DK18103310	CERAMIC 100PF ±10% CERAMIC 0.01µF +80% -20%	R510	GD05102160	1/6W 1K Ω ±5%
C901	EA10700610	ELECT 100µF 6.3V IB	R511 R512	GD05102160	1/6W 1K Ω ±5%
C902	EJ10601610	ELECT 10µF 16V IB	R513	GA05271010 GD05103160	1W 270 Ω ±5% 1/6W 10K Ω ±5%
C903	DK16332300	CERAMIC 3300PF ±10% (B)	R514	GG05470160	1/6W 10K Ω ±5% 1/6W 47 Ω ±5%
C904	DK16332300	CERAMIC 3300PF ±10% (B)	R515	GD05683160	1/6W 47 Ω ±5%
C905	DK18103310	CERAMIC 0.01µF +80% -20% B	R516	GD05473160	1/6W 47KΩ ±5%
C906	DK18103310	CERAMIC 0.01µF +80% -20% IB	R517	GD05473160	1/6W 47KΩ ±5%
C907	EJ10601610	ELECT 10µF 16V IB	R901	GD05333160	1/6W 33KΩ ±5% B
C908	EJ10601610	ELECT 10µF 16V IB	R902	GD05103160	1/6W 10K Ω ±5% IB
C909	EJ47502510	ELECT 4.7μF 25V 🔞	R903	GD05223160	1/6W 22K Ω ±5% IB
C910	EJ10601610	ELECT 10μF 16V 📵	R904	GD05102160	1/6W 1K Ω ±5% IB
C911	DK18223310	CERAMIC0.022μF +80% -20% B	R905	GD05682160	1/6W 6.8K Ω ±5% 🔞
C912	DF15333310	FILM 0.033μF ±5% IB	R907	GD05102160	1/6W 1K Ω ±5% 🔞
C913	DF15333310	FILM 0.033μF ±5% B	R908	GD05332160	1/6W 3.3K Ω ±5% 📵
C914	DF15682350	FILM 0.0068µF ±5% (B)	R909	GD05103160	$1/6W$ $10K\Omega \pm 5\%$ B
C915 C916	DK18103310	CERAMIC 0.01μF +80% -20% B	R910	GA05221010	1W 220 Ω ±5% B
Calo	DD15470300	CERAMIC 47PF ±5% IB	R911	GD05103160	1/6W 10K Ω ±5% IB
		RESISTORS			CONTROLS
RA01	GD05103160	1/6W 10K Ω ±5%	RA11	RA02230780	TRIM-POTS 22KΩ
RA02	GD05104160	1/6W 100K Ω ±5%	R211	RA02230780	TRIM-POTS 22KΩ(B)
RA03	GD05103160	1/6W 10KΩ ±5% (B)	R212	RA04720780	TRIM-POTS 4.7K Ω (B)
RA04	GD05154160	1/6W 150K Ω ±5% IB	R218	RA04720780	TRIM-POTS 4.7K Ω (B)
RA06 RA07	GD05104160 GD05103160	1/6W 100K Ω ±5% IB 1/6W 10K Ω ±5% IB	R906	RA04720780	TRIM-POTS 4.7K Ω (B)
RA08	GD05154160	1/6W 10K Ω ±5% \blacksquare 1/6W 150K Ω ±5% \blacksquare			INTEGRATED CIRCUITS
RA09	GD05222160	1/6W 2.2K Ω ±5% B	Q201	HC10342030	IC LA1836 FM/AM IF, MPX IC
R102	GD05103160	1/6W 10K Ω ±5% IB	Q301	HC10008090	IC NJM4558DD IB Dual OP AMP
R103	GD05103160	1/6W 10K Ω ±5% IB	Q501	HC10221030	IC LC7218
R201	GD05101160	1/6W 100 Ω ±5% BK			PLL Frequency Synthesizer
R202	GD05471160	1/6W 470 Ω ±5% 🔞	Q901	HC10315030	IC LA2232 IB
R202	GD05391160	1/6W 390 Ω ±5% BK			RDS Demodulater
R203	GD05222160	1/6W 2.2K Ω ±5%	Q902	HC10333030	IC LC7073 IB
R204	GD05471160	1/6W 470 Ω ±5%			RDS Error Corrector
R205	GD05331160	1/6W 330 Ω ±5%			TRANSISTORS
R206	GD05153160	1/6W 15 Ω ±5%	QA01	HT30001000	2SC536SP (B)
R207 R208	GG05181140	1/4W 180 Ω ±5%	QA02	HT30001000	2SC536SP IB
R209	GD05392160 GD05104160	1/6W 3.9K Ω ±5%	QA03	HT421442A0	2SD2144S (U, V) B
	GD05104160 GD05332160	1/6W 100K Ω ±5% 1/6W 3.3K Ω ±5%	QA04	BA10002000	DIGITAL DTA144ES IB
R213	GD05332100 GD05220160	1/6W 22 Ω ±5%	QA05	BA10002000	DIGITAL DTA144ES IB
R214	GD05220160	1/6W 47KΩ ±5%	Q202	HT318091P0	2SC1809SP
R215	GD05154160	1/6W 150K Ω ±5% (B)	Q203	BA10007210	DIGITAL DTA114ES
R215	GD05333160	1/6W 33KΩ ±5% BK	Q204	BA20002000	DIGITAL DTC144ES
_	GD05103160	1/6W 10K Ω ±5%	Q503	HT30001000	2SC536SP
	GG05181140	1/4W 180 Ω ±5% B	Q903	HT30001000	2SC536SP IB
	GG05221140	1/4W 220 Ω ±5% BK			CCT
	GD05334160	1/6W 330K Ω ±5%	Q502	HESOUSOODO	F.E.T.
	GD05104160	1/6W 100K Ω ±5% 📵	GUUZ	HF200300B0	2SK30ATM
	GD05104160	1/6W 100K Ω ±5% IB			DIODES
	GD05103160	1/6W 10KΩ ±5% B	DA01	HD40009030	VARICAP SVC342-L
	GD05103160	1/6W 10KΩ ±5% IB	DA02	HD20017210	1SS135 (B)
R305	GD05153160	1/6W 15K Ω ±5% B	DA03	HD40009030	VARICAP SVC342-L IB
			DA04	HD20017210	1SS135 IB

Ref. No.	Part. No.	Description	Ref. No.	Part. No.		Description
DA05	HD20002000	1SS176	CR34	DK98104200	CERAMIC	0.1μF +80% -20%
DA06	HD20002000	1SS176	CR35	DK98104200	CERAMIC	0.1μF +80% -20%
D201	HD20002000	1SS176	CR36	DK98104200	CERAMIC	0.1μF +80% -20%
D202	HD30681000	ZENER 6.8V	CR37	EY10700620	ELECT	100μF 6.3V
D501	HD30511000	ZENER 5.1V	CR38	DK96103200	CERAMIC	0.01μF ±10%
D901	HD30511000	ZENER 5.1V (B)	CR39	EY10601620	ELECT	10μF 16V
			CR40	EY10601620	ELECT	10μF 16V
		COILS	CR41	DD95101300	CERAMIC	100PF ±5%
LA01	LA10295170	ANT, MW 280μH	CR42	DD95101300	CERAMIC	100PF ±5%
LA02	LO70013010	OSC, MW	CR43	DK98104200	CERAMIC	0.1μF +80% -20%
LA03	LA10295160	ANT, LW 📵	CR44	DK98104200	CERAMIC	0.1μF +80% -20%
LA04	LO70013020	OSC, LW (B)	CR45	DD95331300	CERAMIC	330PF ±5%
LA05	LC23960710	CHOKE, 39mH	CR46	DK96104200	CERAMIC	0.1μF ±10%
L201	LI70376010	I.F.T., FM DET	CR47	DD95151300	CERAMIC	150PF ±5%
L301	LS10293020	M.P.X., 19.38KHz	CR48	DK96473200	CERAMIC	0.047μF ±10%
L302	LS10293020	M.P.X., 19.38KHz	CR49	DK98104200	CERAMIC	0.1μF +80% -20%
L501	LC14733800	CHOKE, 47μH	CR50	DK98104200	CERAMIC	0.1μF +80% -20%
L502	LC14733800	CHOKE, 47μH	CR61	DK98104200	CERAMIC	0.1μF +80% -20%
L503	LC14733800	CHOKE, 47μH	CR62	EY10700620	ELECT	100μF 6.3V
L504	LC14733800	СНОКЕ, 47µН	CR63	EY10700620	ELECT	100μF 6.3V
			CR64	DK98104200	CERAMIC	0.1μF +80% -20%
		MISCELLANEOUS	CR65	DK98104200	CERAMIC	0.1μF +80% -20%
A101	AV01203020	VHF TUNER, FE415-G11 (B)	CR66	DK98104200	CERAMIC	0.1μF +80% -20%
A101	AV01202220	VHF TUNER, FE337-A05 BK	CR67	EY10700620	ELECT	100μF 6.3V
F201	FF11070620	CERAMIC FILTER IB	CR68	DK96103200	CERAMIC	0.01μF ±10%
F201	FF11070610	CERAMIC FILTER BK	CR69	EY10601620	ELECT	10μF 16V
F202	FF11070620	CERAMIC FILTER	CR70	EY10601620	ELECT	10μF 16V
J101	YT03030020	TERMINAL, ANT IB	CR71	DD95101300	CERAMIC	100PF ±5%
J101	YT03030080	TERMINAL, ANT BK	CR72	DD95101300	CERAMIC	100PF ±5%
J102	YL01010140	TERMINAL, GND	CR73	DK98104200	CERAMIC	0.1μF +80% -20%
J301	YP06020640	PLUG, 14P	CR74	DK98104200	CERAMIC	0.1μF +80% -20%
LA06	FF10045330	CERAMIC FILTER	CR75	DD95331300	CERAMIC	330PF ±5%
X201	FQ04563040	CERAMIC VIB.	CR76	DD95331300	CERAMIC	330PF ±5%
X501	JX07001260	CRYSTAL, 7.2MHz	CR77	DD95151300	CERAMIC	150PF ±5%
X901	FQ04563040	CERAMIC VIB. CSB456F33 IB	CR78	DD95151300	CERAMIC	150PF ±5%
X902	FQ04004030	CERAMIC VIB. 4.00MHz IB	CR79	DK98104200	CERAMIC	0.1μF +80% -20%
			CR80	DK98104200	CERAMIC	0.1μF +80% -20%
***************************************			C601	EY10601620	ELECT	10μF 16V
			CEAR	EVIDEDIEDO	ELECT	10 [40]

P604-THX PRO-LOGIC DSP P.C. BOARD

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		CAPACITOR	S, CHIP		C
CR01	DK98104200	CERAMIC	0.1μF	+80% -20%	С
CR02	EY10700620	ELECT	100μF	6.3V	С
CR03	EY10700620	ELECT	100μF	6.3V	С
CR04	DK98104200	CERAMIC	0.1μF	+80% -20%	C
CR05	DK98104200	CERAMIC	0.1μF	+80% -20%	C
CR06	DK98104200	CERAMIC	0.1μF	+80% -20%	C
CR07	EY10700620	ELECT	100μF	6.3V	C
CR08	DK96103200	CERAMIC	0.01μF	±10%	C
CR09	EY10601620	ELECT	10μF	16V	C
CR10	EY10601620	ELECT	10μF	16V	C
CR11	DD95101300	CERAMIC	100PF	±5%	C
CR12	DD95101300	CERAMIC	100PF	±5%	C
CR13	DK98104200	CERAMIC	0.1μF	+80% -20%	C
CR14	DK98104200	CERAMIC	0.1μF	+80% -20%	C
CR15	DD95331300	CERAMIC	330PF	±5%	C
CR16	DD95331300	CERAMIC	330PF	±5%	C
CR17	DD95151300	CERAMIC	150PF	±5%	C
CR18	DD95151300	CERAMIC	150PF	±5%	C
CR19	DK98104200	CERAMIC	0.1μF	+80% -20%	C
CR20	DK98104200	CERAMIC	0.1μF	+80% -20%	C
CR31	DK98104200	CERAMIC	0.1μF	+80% -20%	С
CR32	EY10700620	ELECT	100μF	6.3V	C
CR33	EY10700620	ELECT	100μF	6.3V	C
					C

CR72	DD95101300	CERAMIC	100PF	±5%
CR73	DK98104200	CERAMIC	0.1μF	+80% -20%
CR74	DK98104200	CERAMIC	0.1μF	+80% -20%
CR75	DD95331300	CERAMIC	330PF	±5%
CR76	DD95331300	CERAMIC	330PF	±5%
CR77	DD95151300	CERAMIC	150PF	±5%
CR78	DD95151300	CERAMIC	150PF	±5%
CR79	DK98104200	CERAMIC	0.1μF	+80% -20%
CR80	DK98104200	CERAMIC	0.1μF	+80% -20%
C601	EY10601620	ELECT	10μF	16V
C602	EY10601620	ELECT	10μF	16V
C603	DD95151300	CERAMIC	150PF	±5%
C604	DD95151300	CERAMIC	150PF	±5%
C605	DD95151300	CERAMIC	150PF	±5%
C606	DD95151300	CERAMIC	150PF	±5%
C607	DK98104200	CERAMIC	0.1μF	+80% -20%
C608	DK98104200	CERAMIC	0.1μF	+80% -20%
C609	DK98104200	CERAMIC	0.1μF	+80% -20%
C610	DK98104200	CERAMIC	0.1μF	+80% -20%
C611	DK98104200	CERAMIC	0.1μF	+80% -20%
C612	DK98104200	CERAMIC	0.1μF	+80% -20%
C617	DK98104200	CERAMIC	0.1μF	+80% -20%
C618	DK98104200	CERAMIC	0.1μF	+80% -20%
C619	DD95471370	CERAMIC	470PF	±5%
C620	DD95471370	CERAMIC	470PF	±5%
C621	EY10601620	ELECT	10μF	16V
C622	EY10601620	ELECT	10μF	16V
C623	DK98104200	CERAMIC	0.1μF	+80% -20%
C624	EY10700620	ELECT	100μF	6.3V
C625	EY10700620	ELECT	100μF	6.3V
C626	DK98104200	CERAMIC	0.1μF	+80% -20%
C627	DK98104200	CERAMIC	0.1μF	+80% -20%
C628	EY10700620	ELECT	100μF	6.3V
C629	DK98104200	CERAMIC	0.1μF	+80% -20%
C630	EY10700620	ELECT	100μF	6.3V
C631	DK98104200	CERAMIC	0.1μF	+80% -20%
C635	DK96103200	CERAMIC	0.01μF	±10%
C636	DK96103200	CERAMIC	0.01μF	±10%
C637	DK96103200	CERAMIC	0.01μF	±10%
C638	DK96103200	CERAMIC	0.01μF	±10%
C651	DK98104200	CERAMIC	0.1μF	+80% -20%

Ref. No.	Part. No.	Desc	ription	Ref. No.	Part. No.		<u>Description</u>
C652	EY10700620	ELECT 10	0μF 6.3V	RR77	NN05000610	1/16W	0 Ω ±5%
C653	DK98104200		1μF +80% -20%	RR81	NN05000610	1/16W	0 Ω ±5%
C654	EY10700620		0μF 6.3V	RR82	NN05000610	1/16W	
C657 C658	DK98104200		1μF +80% -20%	RR85	NN05000610	1/16W	
C659	EY10700620 DK98104200		0μF 6.3V 1μF +80% -20%	R601	NN05102610	1/16W	
C660	EY10700620		0μF 6.3V	R602 R603	NN05102610 NN05473610	1/16W 1/16W	
C661	DK98104200		1μF +80% -20%	R604	NN05473610	1/16W	
C662	EY10700620		0μF 6.3V	R605	NN05103610	1/16W	
C663	DK98104200	CERAMIC 0.	1μF +80% -20%	R606	NN05103610	1/16W	
C664	EY10700620		0μF 6.3V	R607	NN05103610	1/16W	10KΩ ±5%
C665	DK98104200		1μF +80% -20%	R608	NN05103610	1/16W	
C666 C667	EY10700620		0μF 6.3V	R609	NN05103610	1/16W	
C668	DK98104200 EY10700620		1μF +80%-20% 0μF 6.3V	R610 R611	NN05103610	1/16W	
C671	EY10601620		ομι 6.3 ν 0μ F 16V	R612	NN05103610 NN05103610	1/16W 1/16W	
C672	DK98104200		1μF +80% -20%	R613	NN05103610	1/16W	
C673	EY10601620	ELECT 1	0μF 16V	R614	NN05103610	1/16W	
C676	DK98104200		1μF +80% -20%	R615	NN05221610	1/16W	220 Ω ±5%
C677	DK98104200		1μF +80% -20%	R616	NN05221610	1/16W	
C678	DD95101300		OPF ±5%	R617	NN05103610	1/16W	
C679 C681	DD95101300 DK96103200		OPF ±5% 1μF ±10%	R618	NN05103610	1/16W	
C682	EY10601620		ημε ±10% ΟμΕ 16V	R619 R620	NN05221610 NN05221610	1/16W 1/16W	
C683	DK96102300		OPF ±5%	R621	NN05103610	1/16W	
C684	DK98104200		1μF +80% -20%	R622	NN05000610	1/16W	
C685	DK98104200	CERAMIC 0.	1μF +80% -20%	R661	NN05222610		2.2K Ω ±5%
C686	EY10700620		0μF 6.3V	R662	NN05222610	1/16W	2.2K Ω ±5%
C687	DK96103200		1μF ±10%	R666	NN05222610		2.2K Ω ±5%
C688 C689	DK98104200 DD95120300		1μF +80%-20% 2PF ±5%	R667	NN05222610		2.2K Ω ±5%
C690	DD95120300 DD95120300		2PF ±5% 2PF ±5%	R673 R674	NN05000610 NN05000610	1/16W 1/16W	
C691	DK98104200		1μF +80% -20%	R681	NN05473610	1/16W	
C692	DK98104200		1μF +80% -20%	R682	NN05222610		2.2K Ω ±5%
C693	DK98104200		1μF +80% -20%	R683	NN05750610	1/16W	
C694	EY10700620	ELECT 100	0μF 6.3V	R684	NN05563610	1/16W	
		DECICTORS OF		R685	NN05333610	1/16W	
C641	NN05000610	RESISTORS, CHI	! ±5%	R686 R687	NN05123610 NN05562610	1/16W	12K Ω ±5% 5.6K Ω ±5%
C642	NN05000610		±5%	R688	NN05562610		5.6K Ω ±5% 5.6K Ω ±5%
C656	NN05000610		±5%	R689	NN05121610		120 Ω ±5%
RR01	NN05682610	1/16W 6.8K Ω		R690	NN05224610		220K Ω ±5%
RR02	NN05682610	1/16W 6.8K Ω		R691	NN05471610	1/16W	470 Ω ±5%
RR03	NN05103610	1/16W 10KΩ		R692	NN05123610	1/16W	
RR04 RR05	NN05103610 NN05223610	1/16W 10K Ω 1/16W 22K Ω		R693	NN05750610		75 Ω ±5%
RR06	NN05223610	1/16W 22K Ω		R694 R697	NN05000610 NN05104610	1/16W	0 Ω ±5% 100K Ω ±5%
RR07	NN05223610	1/16W 22K Ω		L606	NN05000610	1/16W	
RR08	NN05223610	1/16W 22KΩ		L607	RI05000180	1/8W	0 Ω ±5%
RR09	NN05223610	1/16W 22K Ω					
RR10	NN05223610	1/16W 22K Ω				INTEGRA	TED CIRCUITS
RR21	NN05682610	1/16W 6.8K Ω		Q601	HC10359030		8016JE
RR22 RR23	NN05682610 NN05103610	1/16W 6.8K Ω 1/16W 10K Ω		0000	1104000000	•	al Signal Processor
	NN05103610	1/16W 10KΩ 1/16W 10KΩ		Q602	HC10360030		8017JE al Signal Processor
	NN05223610	1/16W 22KΩ		Q603	HC10338030	IC LC32	2464PM-80 64kx4bit Dram
	NN05223610	1/16W 22KΩ		Q604	HC10338030		2464PM-80 64kx4bit Dram
	NN05223610	1/16W 22K Ω	±5%	Q605	HC10015480		320 (DAC)
	NN05273610	1/16W 27K Ω				Digita	al Analogue Converter
	NN05223610	1/16W 22K Ω		Q606	HC10015480		320 (DAC)
	NN05273610	1/16W 27KΩ		0007	11040045400	_	al Analogue Converter
	NN05473610 NN05473610	1/16W 47K Ω 1/16W 47K Ω		Q607	HC10015480		320 (DAC)
	NN05473610 NN05103610	1/16W 47K Ω 1/16W 10K Ω		Q608	HC10016480		al Analogue Converter 389 (ADC)
	NN05103610	1/16W 10KΩ		QUU0	11010010460		ogue Digital Converter
	NN05103610	1/16W 10KΩ		Q609	HC10172090		2115M Dual OP AMP
	NN05103610	1/16W 10K Ω	±5%	Q610	HC10172090		2115M Dual OP AMP
	NN05223610	1/16W 22K Ω		Q611	HC10172090		2115M Dual OP AMP
	NN05223610	1/16W 22KΩ		Q612	HC10172090		2115M Dual OP AMP
	NN05223610 NN05223610	1/16W 22K Ω 1/16W 22K Ω		Q613	HC10011090		4558M (Y) Dual OP AMP
	11100220010	1/10AA 551/75	٥/ لىد	Q614 Q615	HC10011090 HC10011090		4558M (Y) Dual OP AMP 4558M (Y) Dual OP AMP
				40.0		10 1401414	TOOONI (1) DUAL OF AIVIE

Ref. No.	Part. No.	Description	Ref. No.	Part. No.	Description
Q616	HC10011090				
Q617	HC10011090	IC NJM4558M (Y) Dual OP AMP IC NJM4558M (Y) Dual OP AMP	C752 C752	DK16681300 DD15680300	CERAMIC 680PF ±10% (B) CERAMIC 68PF ±5% (BK)
Q618	HC10011090	IC NJM4558M (Y) Dual OP AMP	C753	DK16331300	CERAMIC 330PF ±10%
Q619	HC10339030	IC LC8903Q	C754	EA47700610	ELECT 470µF 6.3V
		Digital Audio Interface	C756	OA10610020	ELECT 10μF 100V
Q620	HC700400Z0	IC 74HCU04 Hex Inverters	C757	DK16221300	CERAMIC 220PF ±10%
Q621	HC700800Z0	IC 74HC08	C758	DD15470300	CERAMIC 47PF ±5%
Q622	LC0000E000	Quad 2input AND gate	C759	EA10510010	ELECT 1µF 100V
Q022	HC99005090	IC NJM79L05UA Voltage Regulator	C760 C761	OA47706320 OA47706320	ELECT 470μF 63V
		voltage riogulator	C762	EJ10405010	ELECT 470μF 63V ELECT 0.1μF 50V
		TRANSISTOR	C763	EJ10405010	ELECT 0.1µF 50V
Q623	BA20004210	DIGITAL DTC144EK	▲ C801	DK18103560	CERAMIC 0.01µF +80% -20%
		· · · · · · · · · · · · · · · · · · ·	▲ C802	OB27906310	ELECT 27000μF 63V
1004	V 100001000	MISCELLANEOUS	▲ C803	OB27906310	ELECT 27000μF 63V
J601 J602	YJ06031000 YJ06031000	JACK, 12P JACK, 12P	▲ C804 ▲ C805	DK18103560	CERAMIC 0.01μF +80% -20%
J603	YJ06031000	JACK, 12P	▲ C806	EB10906380 EB10906380	ELECT 10000μF 63V ELECT 10000μF 63V
L601	FM32102010	EMI FILTER	C807	DK18103310	CERAMIC 0.01μF +80% -20%
L602	FN31000010	FEI FILTER	C808	DK18103310	CERAMIC 0.01µF +80% -20%
L603	FN31000010	FEI FILTER	C809	EA33802510	ELECT 3300μF 25V
L604	FN31000010	EMI FILTER	C810	EA33802510	ELECT 3300μF 25V
L605 X681	FN31000010 FZ02255030	EMI FILTER CERAMIC RESONATOR	C811 C812	DK18103310	CERAMIC 0.01μF +80% -20%
7001	1202233030	22.5792MHz	C812	DK18103310 EA10701610	CERAMIC 0.01μF +80% -20% ELECT 100μF 16V
			C814	EA10701610	ELECT 100μF 16V
	P704-MAII	NAMP P.C. BOARD	C815	DK18103310	CERAMIC 0.01µF +80% -20%
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	C816	DK18103310	CERAMIC 0.01μF +80% -20%
		CAPACITORS	C817	EA22801610	ELECT 2200μF 16V
CN03	EA22601610	ELECT 22μF 16V	C818	EA22801610	ELECT 2200μF 16V
CN04	EJ33505010	ELECT 3.3µF 50V B	C820 C821	DA17103110 EA10701610	CERAMIC 0.01μF ±20% ELECT 100μF 16V
CN04 CN05	EJ22505010 DD38104010	ELECT 2.2μF 50V BN CERAMIC 0.1μF +80% -20%	C822	EA10701610	ELECT 100μF 16V ELECT 100μF 16V
CN06	EJ47601610	ELECT 47μF 16V	C823	EA10701610	ELECT 100μF 16V
CN07	EJ47601610	ELECT 47μF 16V	C824	DK18103310	CERAMIC 0.01µF +80% -20%
CN08	EJ10505010	ELECT 1μF 50V	C825	EA10701610	ELECT 100μF 16V
CN09	EJ10701010	ELECT 100μF 10V	C826 C827	EA10701610	ELECT 100μF 16V ELECT 100μF 16V
CN10 CN12	DD38104010	CERAMIC 0.1μF +80% -20% CERAMIC 0.1μF +80% -20%	C828	EA10701610 EA10701610	ELECT 100µF 16V
CN12 CN13	DD38104010 DK16101300	CERAMIC 0.1µF +80% -20% CERAMIC 100PF ±10% B	C829	EA10701610	ELECT 100µF 16V
CN14	DK16101300	CERAMIC 100PF ±10% IB			•
CN15	DK18103310	CERAMIC 0.01µF +80% -20% B			RESISTORS
CN16	DK18103310	CERAMIC 0.01µF +80% -20% IB	ARN01	GG05122160	1/6W 1.2K Ω ±5%
C701	OA47601020	ELECT 47μF 10V	▲ RN02 RN03	GG05122160 GD05103160	1/6W 1.2K Ω ±5% 1/6W 10K Ω ±5%
C702 C703	OA47601020 DK16681300	ELECT 47μF 10V CERAMIC 680PF ±10% IB	RN04	GD05103160	1/6W 10KΩ ±5%
C703	DD15680300	CERAMIC 68PF ±5% BK	RN05	GD05102160	1/6W 1K Ω ±5%
C704	DK16681300	CERAMIC 680PF ±10% IB	RN06	GD05102160	1/6W 1K Ω ±5%
C704	DD15680300	CERAMIC 68PF ±5% BK	RN07	GD05223160	$1/6W$ 22K Ω ±5%
C705	DK16331300	CERAMIC 330PF ±10%	RN08	GD05223160	1/6W 22K Ω ±5%
C706	DK16331300	CERAMIC 330PF ±10%	RN10 RN11	GD05682160 GD05473160	1/6W 6.8K Ω ±5% 1/6W 47K Ω ±5%
C707 C708	EA47700610 EA47700610	ELECT 470μF 6.3V ELECT 470μF 6.3V	RN12	GD05473160 GD05472160	1/6W 4/ΚΩ ±5%
C709	EA10510010	ELECT 1μF 100V	RN13	GD05473160	1/6W 47K Ω ±5%
C710	EA10510010	ELECT 1μF 100V	RN14	GD05473160	1/6W 47K Ω ±5%
C711	OA10610020	ELECT 10µF 100V	RN15	GD05104160	1/6W 100K Ω ±5%
C712	OA10610020	ELECT 10μF 100V	RN16	GD05822160	1/6W 8.2K Ω ±5%
C713	DK16221300	CERAMIC 220PF ±10%	RN20 RN21	GG05222140 GD05473160	1/6W 2.2K Ω ±5% 1/6W 47K Ω ±5%
C714 C715	DK16221300	CERAMIC 220PF ±10%	RN22	GD05473160 GD05333160	1/6W 33K Ω ±5%
C715	DD15470300 DD15470300	CERAMIC 47PF ±5% CERAMIC 47PF ±5%	RN23	GD05683160	1/6W 68K Ω ±5%
C719	OA47706320	ELECT 470µF 63V	RN24	GD05683160	1/6W 68K Ω ±5%
C720	OA47706320	ELECT 470µF 63V	RN25	GD05683160	1/6W 68K Ω ±5%
C721	OA47706320	ELECT 470µF 63V	RN26	GD05683160	1/6W 68K Ω ±5%
C722	OA47706320	ELECT 470μF 63V	A RN27	GA05561010	1W 560 Ω ±5%
C723	OA10405020	ELECT 0.1µF 50V	▲ RN28 RN30	GA05561010 GD05103160	1W 560 Ω ±5% 1/6W 10K Ω ±5%
C724 C725	OA10405020 OA10405020	ELECT 0.1μF 50V	RN31	GD05103160 GD05103160	1/6W 10K Ω ±5% 1/6W 10K Ω ±5%
C726	OA10405020	ELECT 0.1μF 50V ELECT 0.1μF 50V	RN32	GD05223160	1/6W 22K Ω ±5%
C751	OA47601020	ELECT 47µF 10V	RN33	GD05103160	1/6W 10K Ω ±5%

Ref. No.	Part. No.	Description	Ref. No.	Part. No.	<u>Description</u>
RN35	GD05100160	1/6W 10 Ω ±5%	▲ R754	GG05181140	1/4W 180 Ω ±5%
RN36	GG05222160	1/6W 2.2K Ω ±5%	▲ R755	GG05100140	1/4W 10 Ω ±5%
RN41	GD05100160	1/6W 10 Ω ±5%	▲ R756	GG05100140	1/4W 10 Ω ±5%
RN42	GD05100160	1/6W 10 Ω ±5%	▲ R757	GG05100140	1/4W 10 Ω ±5%
▲RN43	GG05101160	1/6W 100 Ω ±5%	▲ R758	GG05100140	$1/4W$ $10 \Omega \pm 5\%$
ARN44	GG05101160	1/6W 100 Ω ±5%	▲ R759	BZ10182020	0.18 Ω 5W x 2 ARRAY
ARN45	GG05101160	1/6W 100 Ω ±5%	▲ R760	BZ10182020	0.18 Ω 5W x 2 ARRAY
▲ RN46 ▲ RN51	GG05101160	1/6W 100 Ω ±5%	A R761	GG05100160	1/6W 10 Ω ±5%
RN52	GG05122160 GD05103160	1/6W 1.2K Ω ±5% 1/6W 10K Ω ±5%	▲ R762	GG05100160	1/6W 10 Ω ±5%
RN53	GD05103100 GD05102160	1/6W 1KΩ ±5%	▲ R763 ▲ R764	GA05100010 GA05100010	1W 10 Ω ±5% 1W 10 Ω ±5%
RN54	GD05102100	1/6W 22KΩ ±5%	R765	GD05333160	1W 10 Ω ±5% 1/6W 33K Ω ±5%
RN55	GD05683160	1/6W 68K Ω ±5%	R766	GD05333100	1/6W 1KΩ ±5% (B)
RN56	GD05100160	1/6W 10 Ω ±5%	R766	GD05331160	1/6W 330 Ω ±5% BK
▲RN57	GG05101160	1/6W 100 Ω ±5%	R767	GD05221160	1/6W 220 Ω ±5%
▲ RN58	GG05101160	1/6W 100 Ω ±5%	R768	GD05152160	1/6W 1.5K Ω ±5%
RN61	GD05472160	1/6W 4.7K Ω ±5%	R769	GD05561160	1/6W 560 Ω ±5%
RN62	GD05472160	$1/6W$ $4.7K \Omega \pm 5\%$	R770	GD05151160	1/6W 150 Ω ±5%
R701	GD05333160	1/6W 33K Ω ±5%	R771	GD05152160	1/6W 1.5K Ω ±5%
R702	GD05333160	1/6W 33K Ω ±5%	R772	GD05271160	1/6W 270 Ω ±5%
R703	GD05102160		B R773	GD05224160	1/6W 220K Ω ±5%
R703	GD05331160	-	BK R774	GD05473160	1/6W 47K Ω ±5%
R704	GD05102160		B R775	GD05561160	1/6W 560 Ω ±5%
R704	GD05331160		B A R776	GG05561160	1/6W 560 Ω ±5%
R705 R706	GD05221160	1/6W 220 Ω ±5%	▲ R777	GG05561160	1/6W 560 Ω ±5%
R707	GD05221160 GD05152160	1/6W 220 Ω ±5% 1/6W 1.5K Ω ±5%	R778	GD05122160	1/6W 1.2K Ω ±5%
R708	GD05152160	1/6W 1.5K Ω ±5%	▲ R779	GG05561160	1/6W 560 Ω ±5%
R709	GD05561160	1/6W 1.5K Ω ±5%	≜ R780 R781	GG05561160 GD05104160	1/6W 560 Ω ±5% 1/6W 100K Ω ±5%
R710	GD05561160	1/6W 560 Ω ±5%	▲ R783	GG05560160	1/6W 56 Ω ±5%
R711	GD05151160	1/6W 150 Ω ±5%	▲ R784	GG05560160	1/6W 56 Ω ±5%
R712	GD05151160	1/6W 150 Ω ±5%	R785	GD05682160	1/6W 6.8K Ω ±5%
R713	GD05152160	1/6W 1.5K Ω ±5%	R787	GD05272160	1/6W 2.7K Ω ±5%
R714	GD05152160	1/6W 1.5K Ω ±5%	R788	GD05333160	1/6W 33K Ω ±5%
R715	GD05271160	1/6W 270 Ω ±5%	▲ R789	GG05022160	1/6W 2.2 Ω ±5%
R716	GD05271160	1/6W 270 Ω ±5%	▲ R790	GG05022160	1/6W 2.2 Ω ±5%
R717	GD05224160	1/6W 220K Ω ±5%	▲ R791	GG05181140	1/6W 180 Ω ±5%
R718 R719	GD05224160 GD05473160	1/6W 220K Ω ±5% 1/6W 47K Ω ±5%		GG05100140	1/4W 10 Ω ±5%
R720	GD05473160	1/6W 47K Ω ±5% 1/6W 47K Ω ±5%		GG05100140 BZ10182020	1/4W 10 Ω ±5%
R721	GD05561160	1/6W 560 Ω ±5%	A	GG05100160	0.18 Ω 5W x 2 ARRAY 1/6W 10 Ω ±5%
R722	GD05561160	1/6W 560 Ω ±5%		GA05100100	1W 10 Ω ±5%
▲ R723	GG05561160	1/6W 560 Ω ±5%		GD05102160	1/6W 1KΩ ±5% (B)
▲ R724	GG05561160	1/6W 560 Ω ±5%		GD05222160	1/6W 2.2K Ω ±5% BK
▲ R725	GG05561160	1/6W 560 Ω ±5%	R798	GD05102160	1/6W 1K Ω ±5% 📵
▲ R726	GG05561160	1/6W 560 Ω ±5%	R798	GD05222160	1/6W 2.2K Ω ±5% BK
R727	GD05122160	1/6W 1.2K Ω ±5%		GD05102160	1/6W 1KΩ ±5% 📵
R728	GD05122160	1/6W 1.2K Ω ±5%		GD05222160	1/6W 2.2K Ω ±5% BK
▲ R729	GG05561160	1/6W 560 Ω ±5%		GG05010140	1/4W 1 Ω ±5% BK
▲ R730	GG05561160	1/6W 560 Ω ±5%		GG05010140	1/4W 1 Ω ±5% B
▲ R731 ▲ R732	GG05561160 GG05561160	1/6W 560 Ω ±5% 1/6W 560 Ω ±5%		GG05010140	1/4W 1 Ω ±5% BK
R733	GD05104160	1/6W 100K Ω ±5%	▲ .	GG05010140 GG05010140	1/4W 1 Ω ±5% BK 1/4W 1 Ω ±5% B
R734	GD05104160	1/6W 100K Ω ±5%	A	GG05010140	1/4W 1 Ω ±5% B 1/4W 1 Ω ±5% B
▲ R737	GG05560160	1/6W 56 Ω ±5%		GG05010140	1/4W 1 Ω ±5% B
▲ R738	GG05560160	1/6W 56 Ω ±5%		GG05010140	1/4W 1 Ω ±5% B
▲ R739	GG05560160	1/6W 56 Ω ±5%			
▲ R740	GG05560160	1/6W 56 Ω ±5%			
R741	GD05682160	1/6W 6.8K Ω ±5%			
R742	GD05682160	1/6W 6.8K Ω ±5%			
R745	GD05272160	1/6W 2.7K Ω ±5%			CONTROLS
R746	GD05272160	1/6W 2.7K Ω ±5%		RA01010780	TRIM-POTS 100 Ω
R747	GD05333160	1/6W 33K Ω ±5%		RA01010780	TRIM-POTS 100 Ω
R748	GD05333160	1/6W 33K Ω ±5%		RA01010780	TRIM-POTS 100 Ω
▲ R749 ▲ R750	GG05022160	1/6W 2.2 Ω ±5%		RA02220780	TRIM-POTS 2.2K Ω
▲R751	GG05022160 GG05022160	1/6W 2.2 Ω ±5% 1/6W 2.2 Ω ±5%		RA02220780	TRIM-POTS 2.2K Ω
▲R752	GG05022160	1/6W 2.2 Ω ±5%	R786	RA02220780	TRIM-POTS 2.2K Ω
▲ R753	GG05181140	1/4W 180 Ω ±5%			

Ref. No.	Part. No.	<u>Description</u>	Ref. No.	Part. No.	Description
		INTEGRATED CIRCUITS	D707	HD20027010	HSS81TD
QN04	HC10042050	IC TA7317P (AVR80)	D708	HD20027010	HSS81TD
A 0004	1100004=000	Over Load Protector	D709	HD30911000	ZENER, 9.1V
A Q801	HC38915090	IC NJM7815FA Voltage Regulator	D710	HD30911000	ZENER, 9.1V
▲ Q802 ▲ Q803	HC39915090	IC NJM7915FA Voltage Regulator	D711	HD30911000	ZENER, 9.1V
A Q803 A Q804	HC38905090 HC39905090	IC NJM7805FA Voltage Regulator IC NJM7905FA Voltage Regulator	D712	HD30911000	ZENER, 9.1V
▲ Q805	HC38905090	IC NJM7805FA Voltage Regulator	D751 D752	HD20002000 HD20002000	1SS176 1SS176
22 G 000	11000000000	10 Now 1001 A Voltage Hegulator	D752	HD20027010	HSS81TD
		TRANSISTORS	D754	HD20027010	HSS81TD
▲ QN01	HT322402A0	2SC2240 (GR, BL)	D755	HD30911000	ZENER, 9.1V
▲ QN02	HT322402A0	2SC2240 (GR, BL)	D756	HD30911000	ZENER, 9.1V
QN03	HT109702A0	2SA970 (GR, BL)	▲ D801	HE20012290	D5FB20
QN07	HT10001000	2SA608SP	▲ D802	HE20012290	D5FB20
QN08	HT316272B0	2SC1627 (O, Y)	▲ D803	HE20011290	\$2VB20
▲ QN51 Q701	HT322402A0 HT109702A0	2SC2240 (GR, BL)	▲ D804	HE20011290	\$2VB20
Q701	HT109702A0	2SA970 (GR, BL) 2SA970 (GR, BL)	D805 D806	HD20002710 HD20002710	1D3 1A/200V 1D3 1A/200V
Q703	HT109702A0	2SA970 (GR, BL)	D807	HD20002710	1D3 1A/200V
Q704	HT109702A0	2SA970 (GR, BL)	D808	HD20002710	1D3 1A/200V
Q705	HT109702A0	2SA970 (GR, BL)	D809	HD20002710	1D3 1A/200V
Q706	HT109702A0	2SA970 (GR, BL)			
Q707	HT327052A0	2SC2705 (O, Y)			COILS
Q708	HT327052A0	2SC2705 (O, Y)	L701	ML08010030	AIR, SPK CHOCK
Q709 Q710	HT327052A0 HT327052A0	2SC2705 (O, Y) 2SC2705 (O, Y)	L702 L751	ML08010030	AIR, SPK CHOCK
Q710 Q711	HT113602A0	2SA1360 (O, Y)	L/51	ML08010030	AIR, SPK CHOCK
Q712	HT113602A0	2SA1360 (O, Y)			MISCELLANEOUS
Q713	HT334232A0	2SC3423 (O, Y)	▲ F801	FS20040210	FUSE TR5 T400MA 250V BK
Q714	HT334232A0	2SC3423 (O, Y)	JN01	YP06013130	PLUG, 13P (AVR80MK II)
Q715	HT334191Y0	2SC3419Y	J701	YP06004570	PLUG, 13P
Q716	HT334191Y0	2SC3419Y	J702	YP06019700	PLUG, 20P
▲ Q717 ▲ Q718	HT348821A0 HT348821A0	2SC4883 (O, Y) 2SC4883 (O, Y)	J706	YP06010450	PLUG, 5P
▲ Q719	HT118592A0	2SA1859 (O,Y)	J707 J708	YL01010240 YL01010240	TERMINAL, GND TERMINAL, GND
▲ Q720	HT118592A0	2SA1859 (O,Y)	J709	YL01010240	TERMINAL, GND
▲ Q721	HT332812A0	2SC3281 (R, O)	J710	YL01010240	TERMINAL, GND
▲ Q722	HT332812A0	2SC3281 (R, O)	J711	YL01010240	TERMINAL, GND
▲ Q723	HT113022A0	2SA1302 (R, O)	J712	YL01010240	TERMINAL, GND
▲ Q724	HT113022A0	2\$A1302 (R, O)	J801	YP06010950	PLUG, 5P
Q751 Q752	HT109702A0 HT109702A0	2SA970 (GR, BL) 2SA970 (GR, BL)	J802 J803	YP06003690 YP06010950	PLUG, 6P
Q753	HT109702A0	2SA970 (GR, BL)	J804	YP06003830	PLUG, 5P PLUG, 3P
Q754	HT327052A0	2SC2705 (O, Y)	LN01	LY20180020	RELAY
Q755	HT327052A0	2SC2705 (O, Y)	LN02	LY20180020	RELAY
Q756	HT113602A0	2SA1360 (O, Y)	LN03	LY20240410	RELAY (AVR80MKII)
Q757	HT334232A0	2SC3423 (O, Y)	LN03	LY20240450	RELAY (AVR80)
Q758	HT334191Y0	2SC3419Y	LN51	LY20180020	RELAY
▲ Q759 ▲ Q760	HT348821A0 HT118592A0	2SC4883 (O, Y) 2SA1859 (O,Y)			
▲ Q761	HT332812A0	2SC3281 (R, O)		P754-SPK TE	RMINAL P.C. BOARD
▲ Q762	HT113022A0	2SA1302 (R, O)			CAPACITORS
		, , ,	C727	DK18103310	CERAMIC 0.01µF +80% -20% (IB)
_		DIODES	C728	DK18103310	CERAMIC 0.01µF +80% -20% IB
DN01	HD20002710	1D3 1A/200V	C729	DK18103310	CERAMIC 0.01µF +80% -20% IB
DN02	HD20002710	1D3 1A/200V	C730	DK18103310	CERAMIC 0.01μF +80% -20% B
DN03 DN04	HD20002710	1D3 1A/200V	C731	DK18223310	CERAMIC0.022µF +80% -20% (B)
DN04 DN07	HD20002710 HD20027010	1D3 1A/200V HSS81TD	C732	DK18223310	CERAMICO.022μF +80% -20% IB
DN07	HD20027010	HSS81TD	C733	DK18103310	CERAMIC 0.01µF +80% -20% (B)
DN09	HD20002710	1D3 1A/200V	C734 C764	DK18103310 DK18103310	CERAMIC 0.01 µF +80% -20% B
DN51	HD20002710	1D3 1A/200V	C764 C765	DK18103310 DK18103310	CERAMIC 0.01μF +80% -20% (B) CERAMIC 0.01μF +80% -20% (B)
DN52	HD20027010	HSS81TD	5705	DICTO 1000 TO	CE ΙΑΝΝΙΟ 0.01μ1 Του /6 -20 /6 1Β
D701	HD20002000	1SS176			MISCELLANEOUS
D702	HD20002000	1SS176	J703	YJ06020800	JACK, 20P
D703	HD20002000	1SS176	J704	YT01080120	TERMINAL, SPK 8P
D704 D705	HD20002000 HD20027010	1SS176 HSS81TD	J751	YT01020220	TERMINAL, SPK2P
D705	HD20027010	HSS81TD			

IC BLOCK DIAGRAMS

DETECT CIRCUIT

DC VOLTAGE

DETECT CIRCUIT

(4)

QN04: TA7317P OVER LOAD PROTECTOR

B

CONSTANT
VOLTAGE
CIRCUIT
OVER CURRENT
OR
SCHMIDT
RELAY DRIVE

DISCHARGE

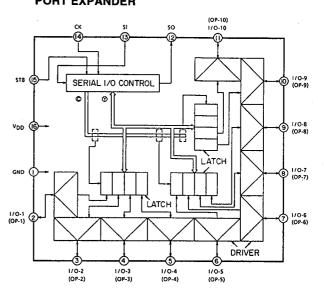
CIRCUIT

CIRCUIT

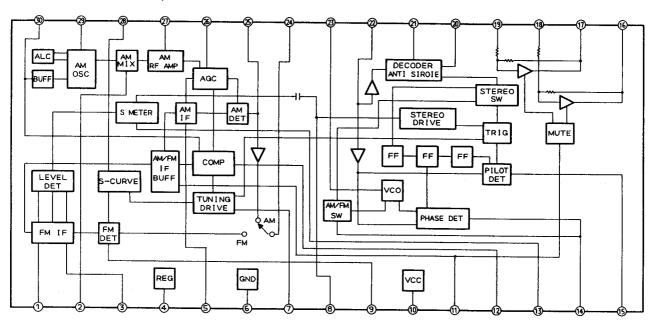
CIRCUIT

SUBSTRATE

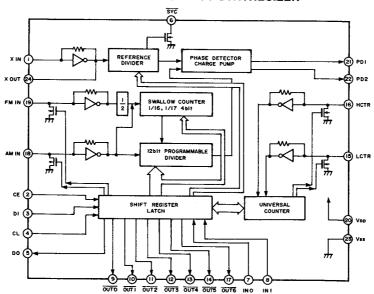
QY10: TC9173 QY11: TC9174 PORT EXPANDER



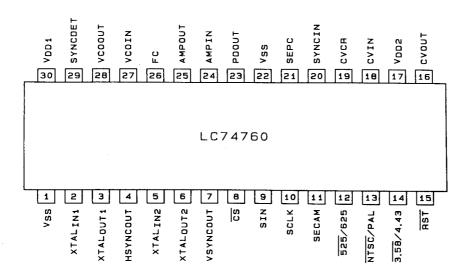
Q201: LA1836 FM / AM IF, MPX IC

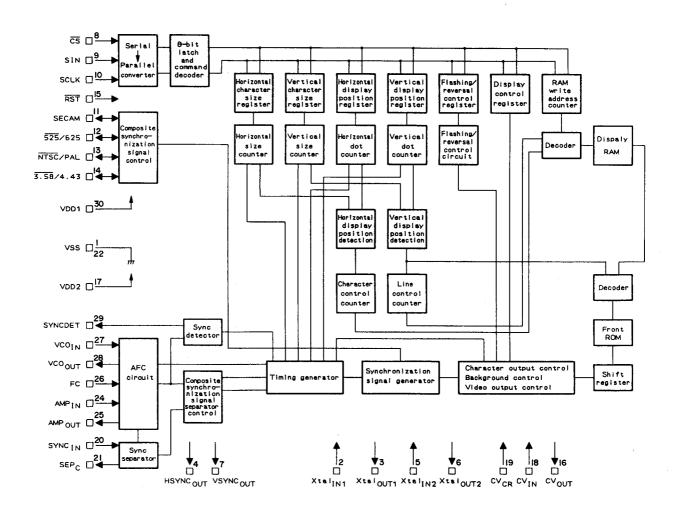


Q501: LC7218 PLL FREQUENCY SYNTHESIZER

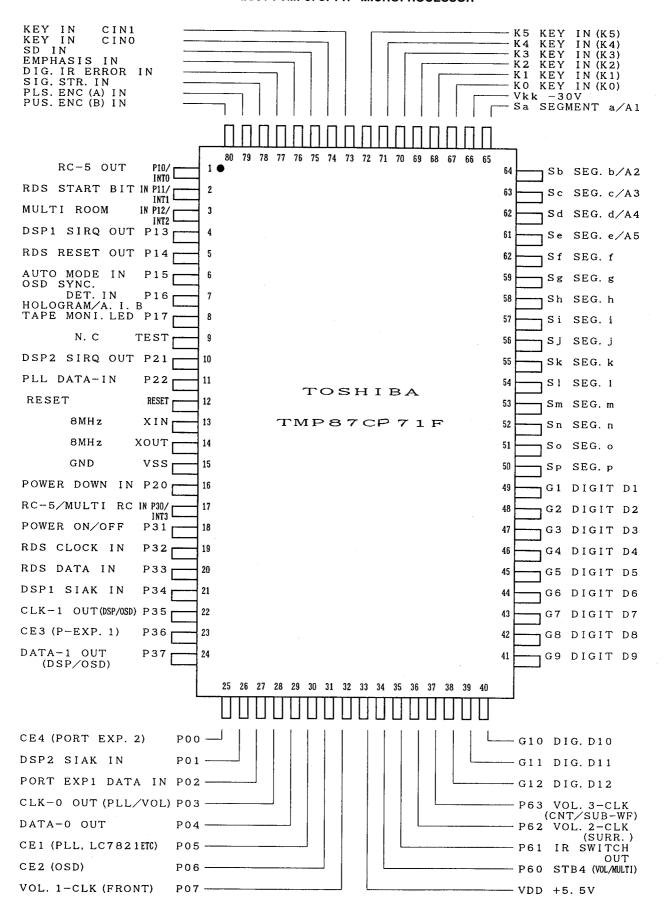


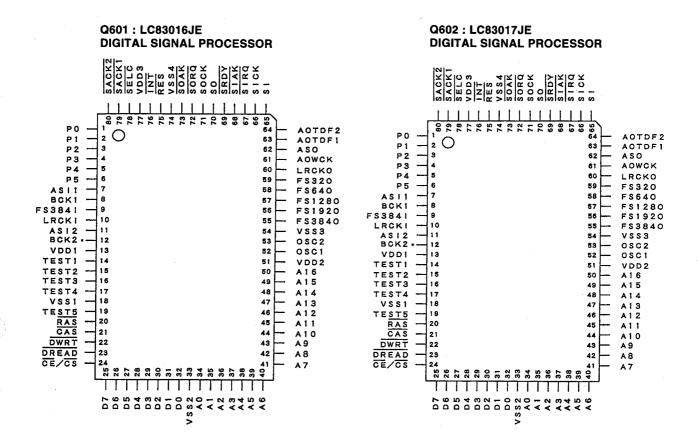
QX60 : LC74760-9004 OSD LSI

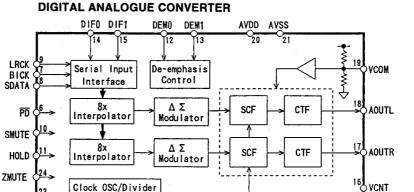




QU01: TMP87CP71F MICROPROCESSOR







DVDD

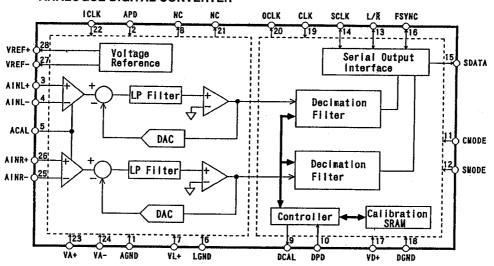
DVSS

VREF

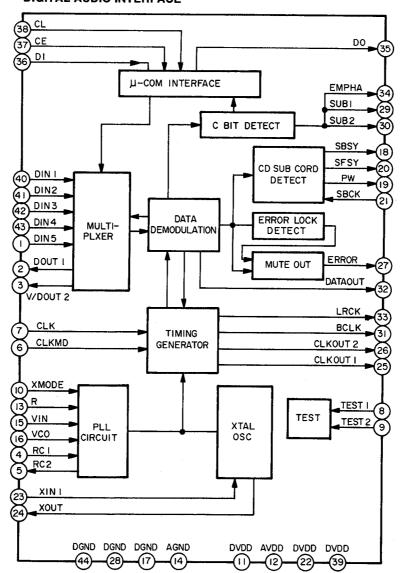
Q605 ~ Q607: AK4320

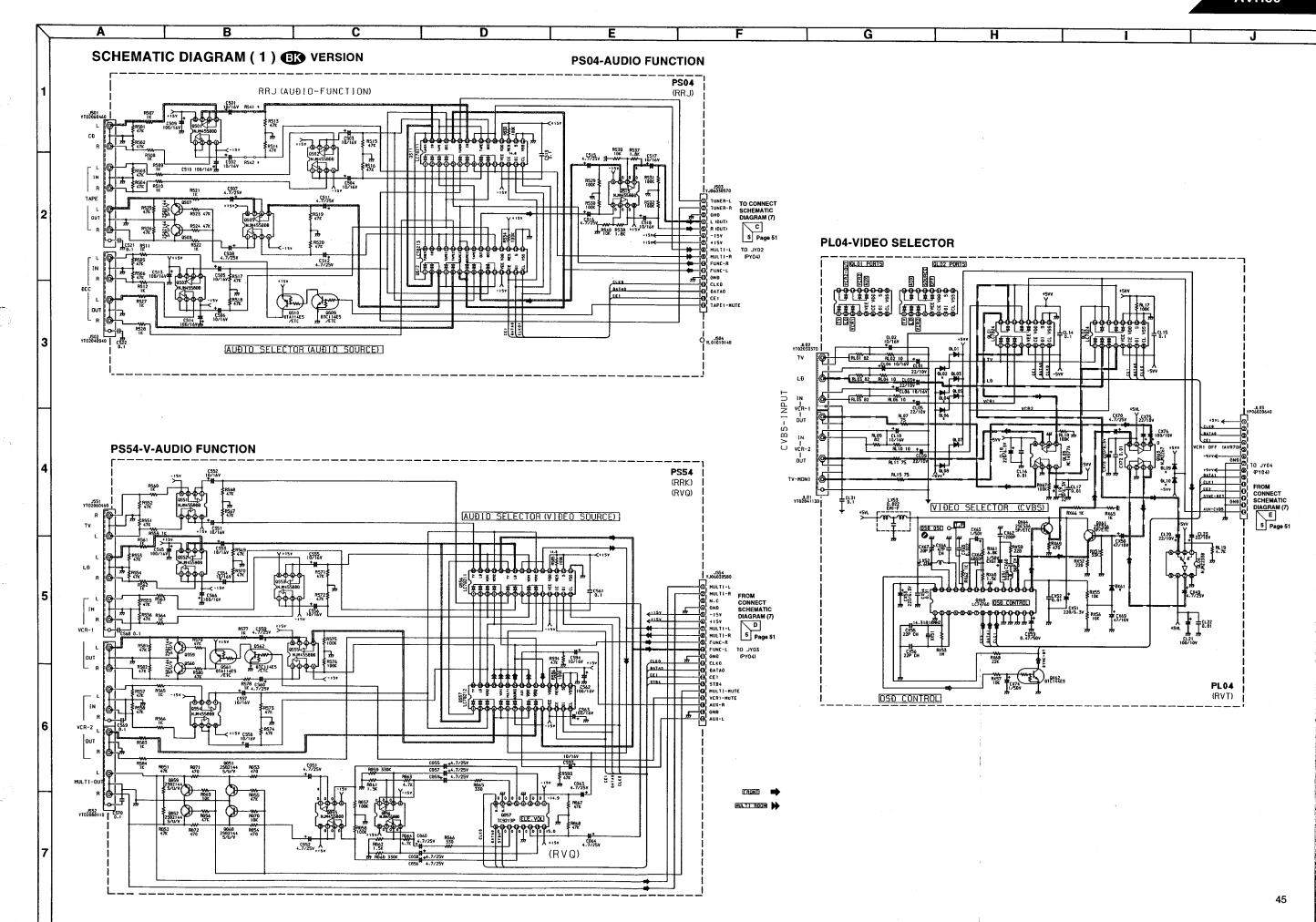
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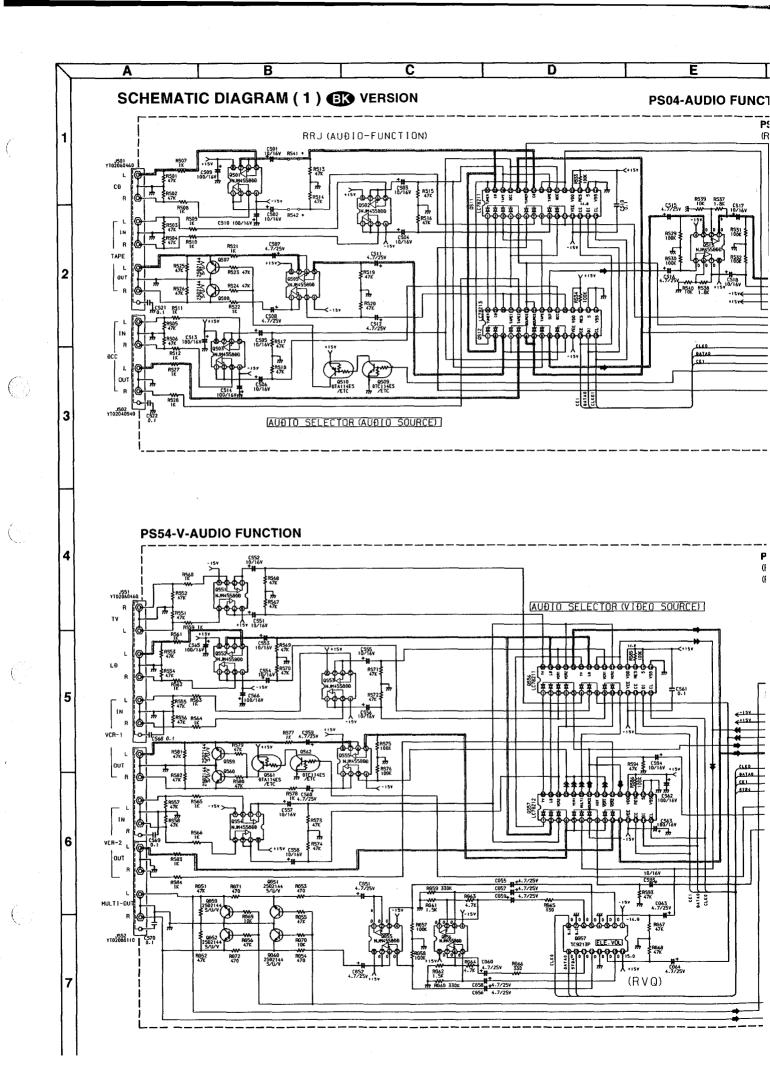
Q608: AK5389 ANALOGUE DIGITAL CONVERTER

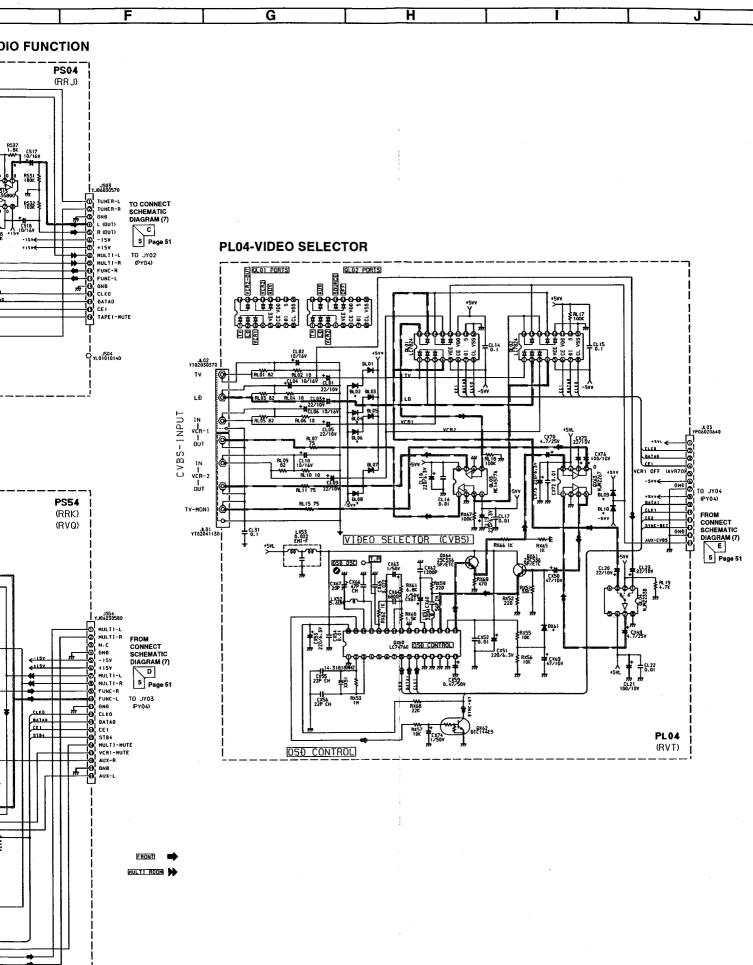


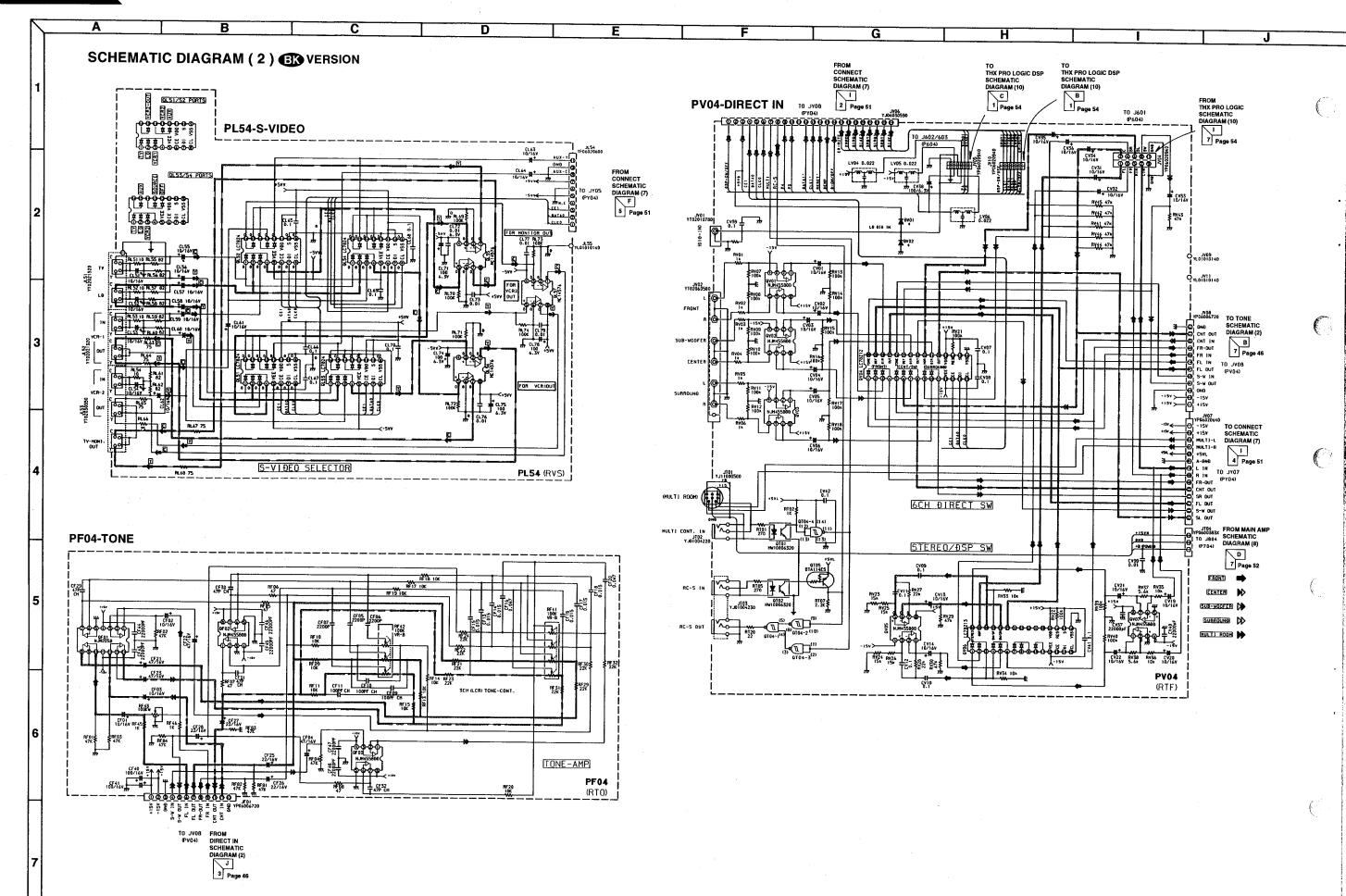
Q619: LC8903Q DIGITAL AUDIO INTERFACE



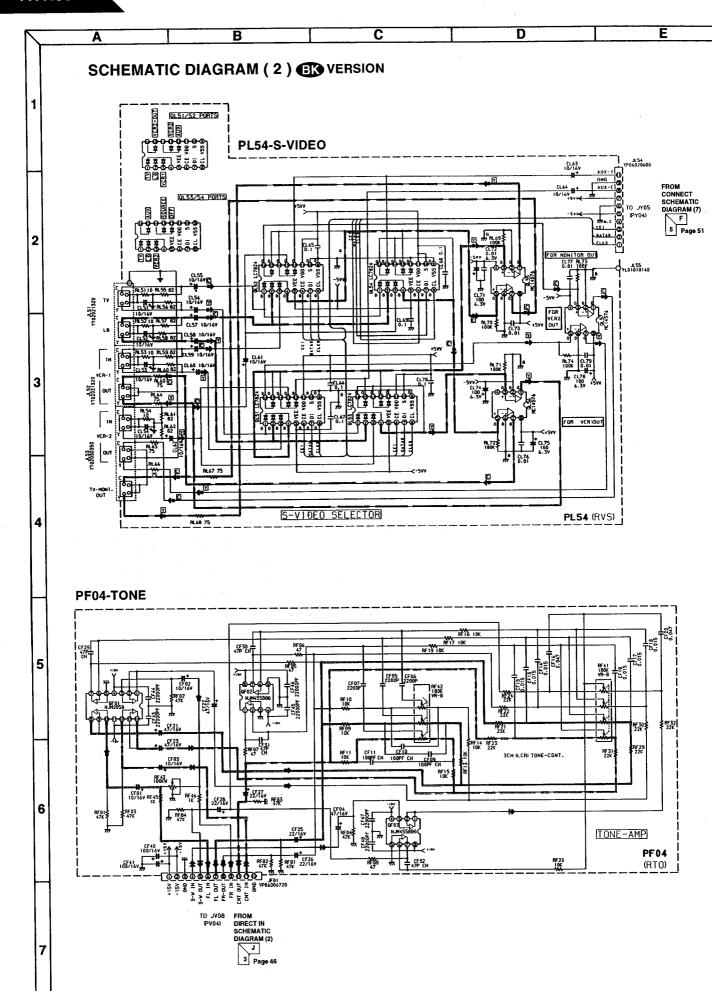


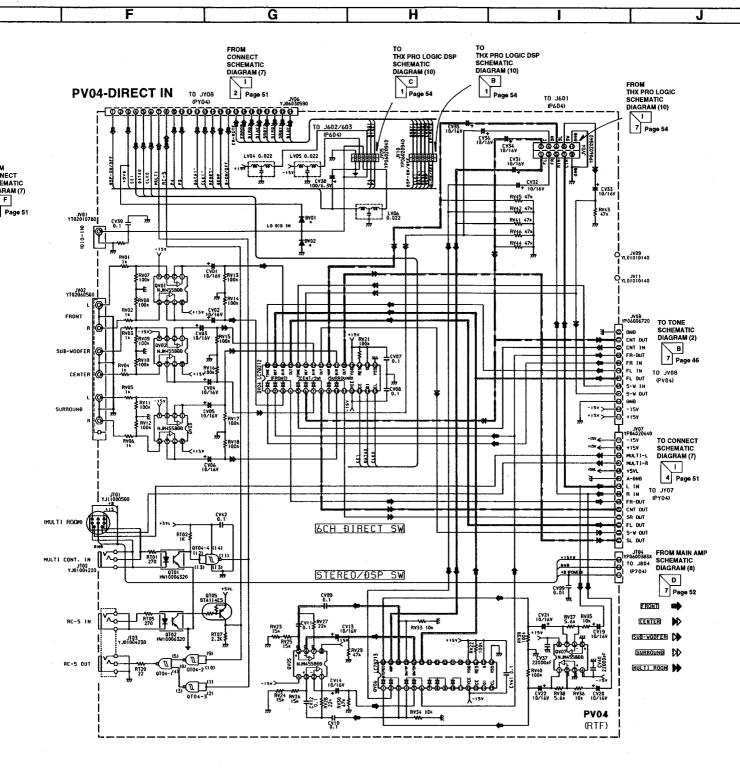


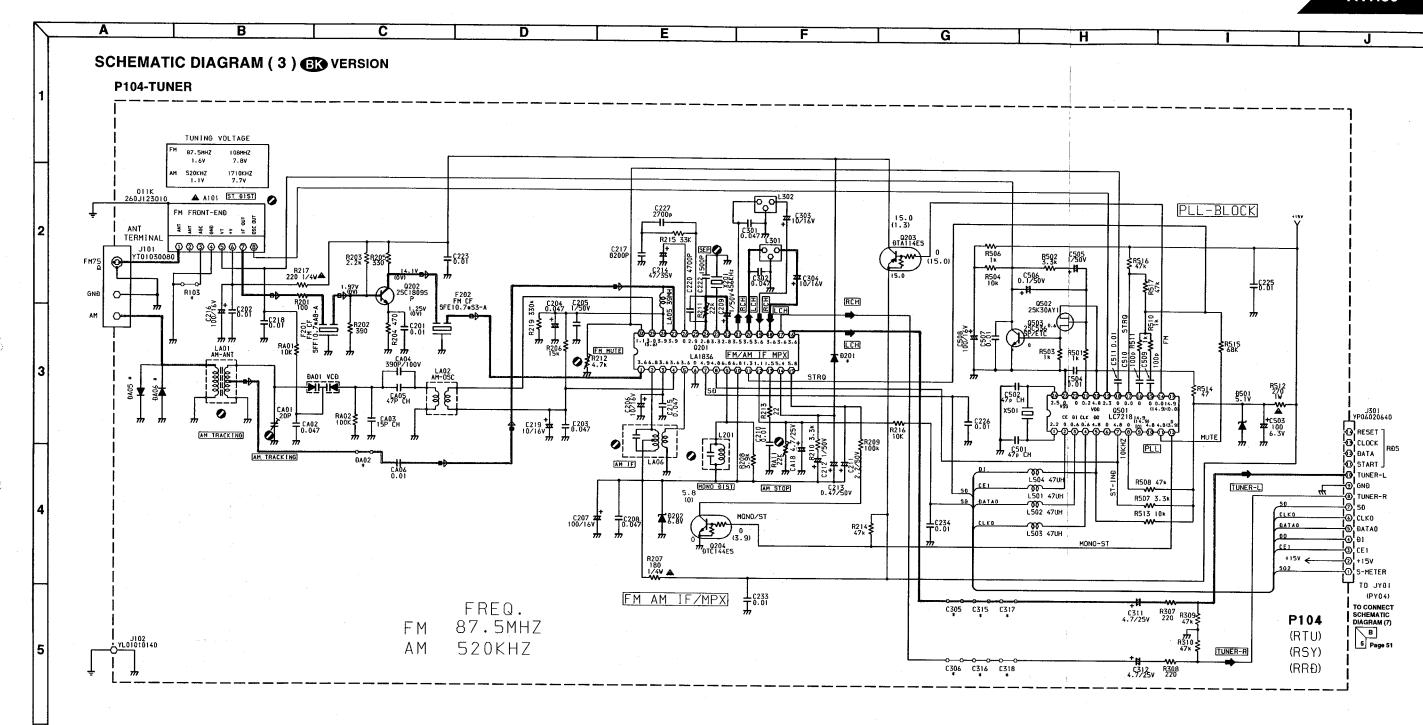


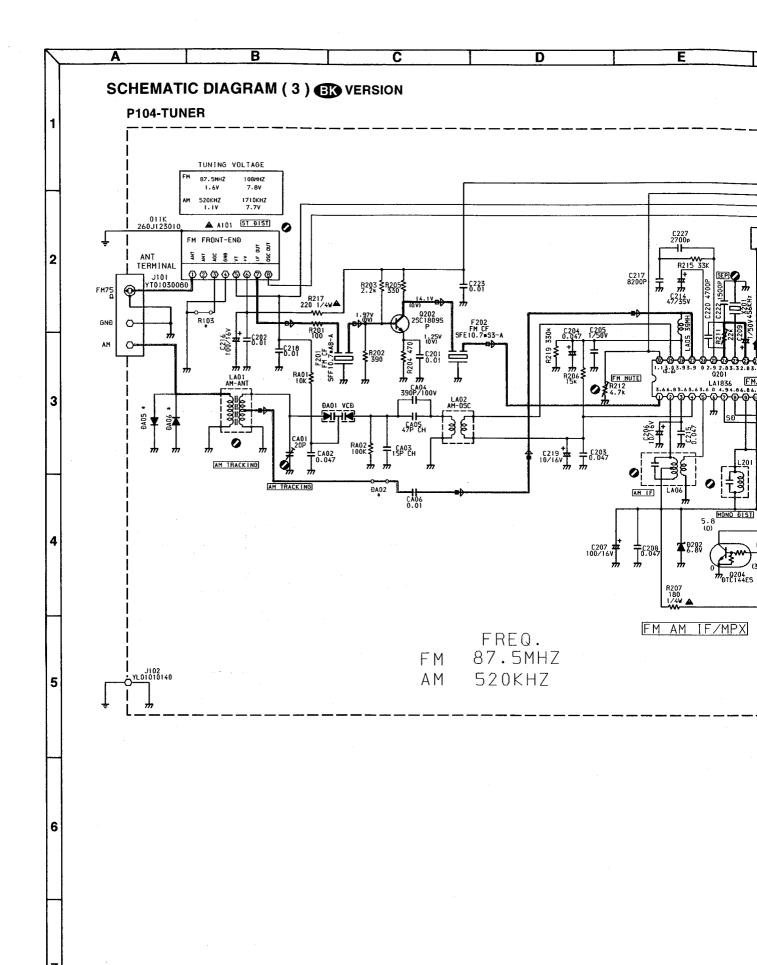


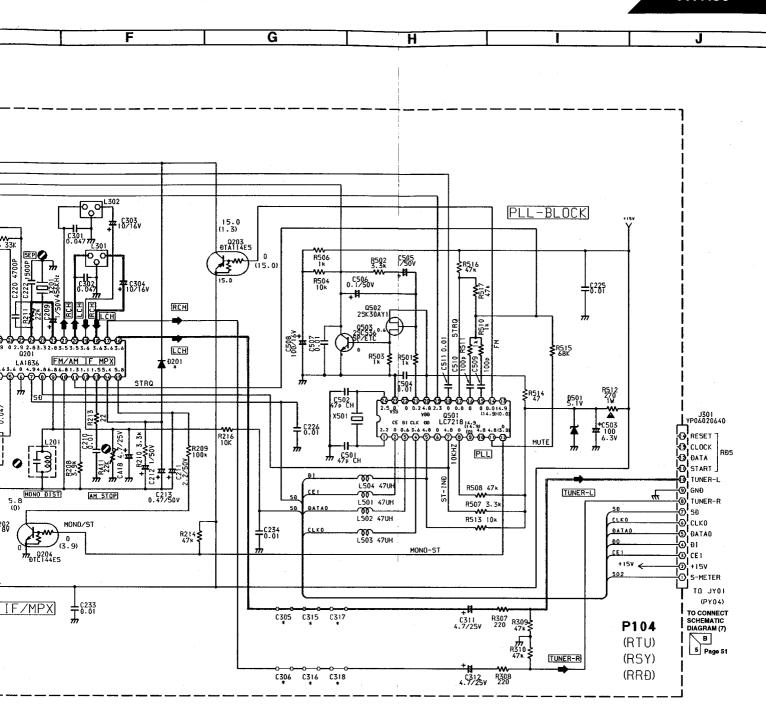
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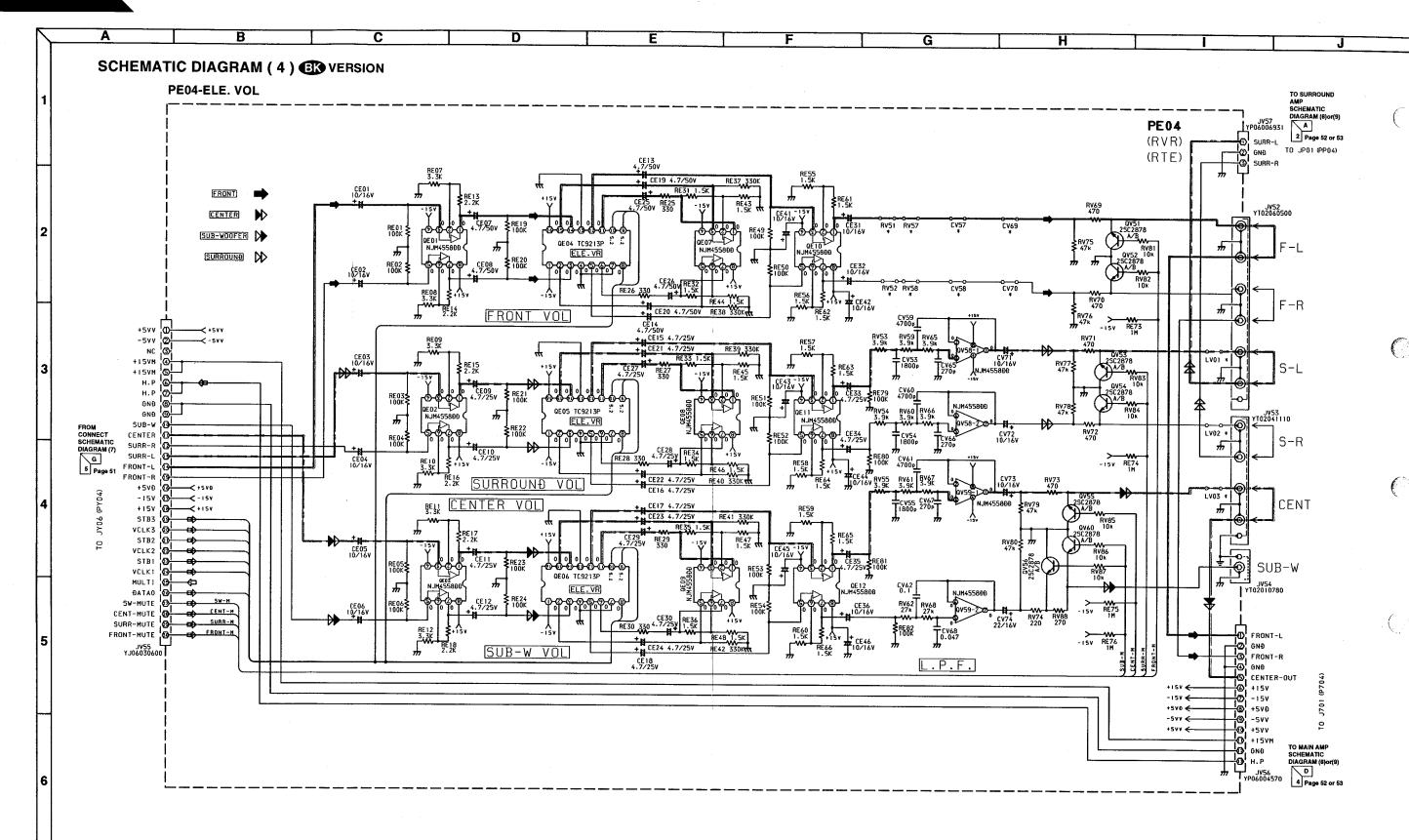


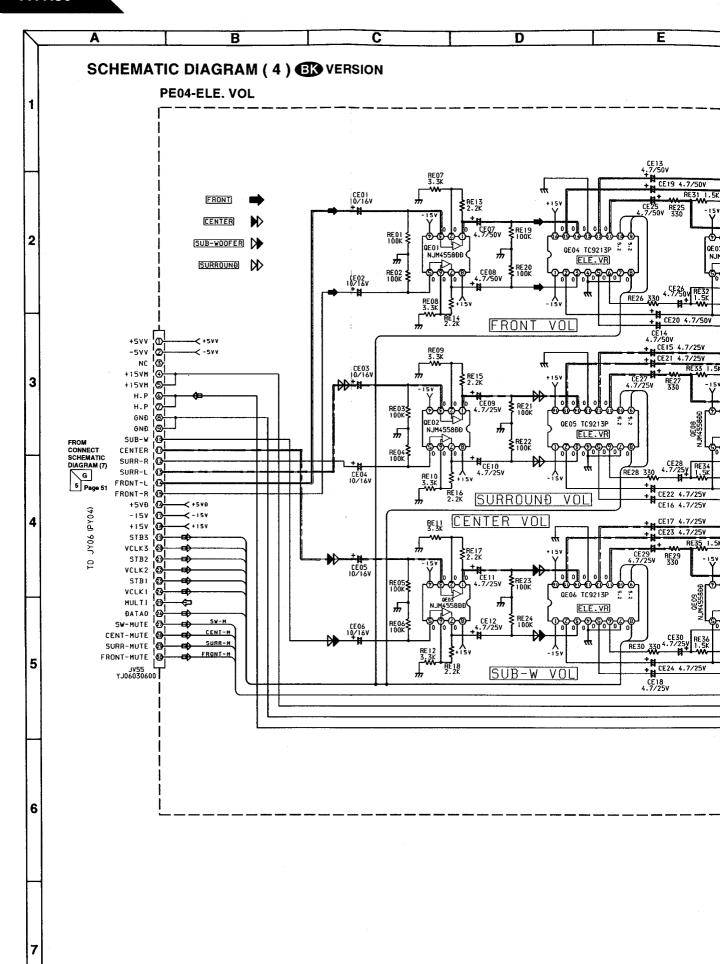


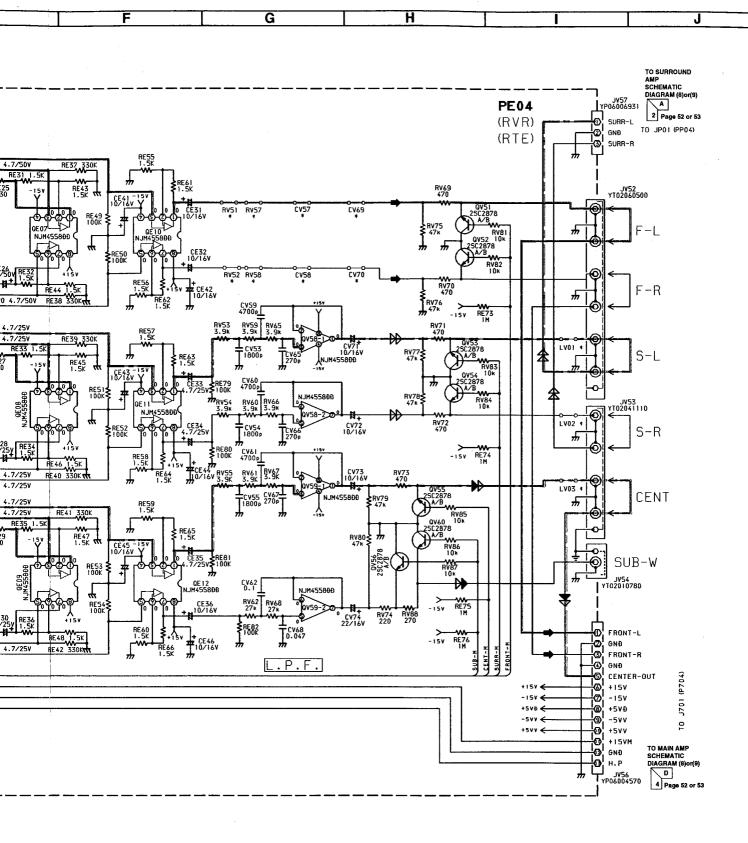


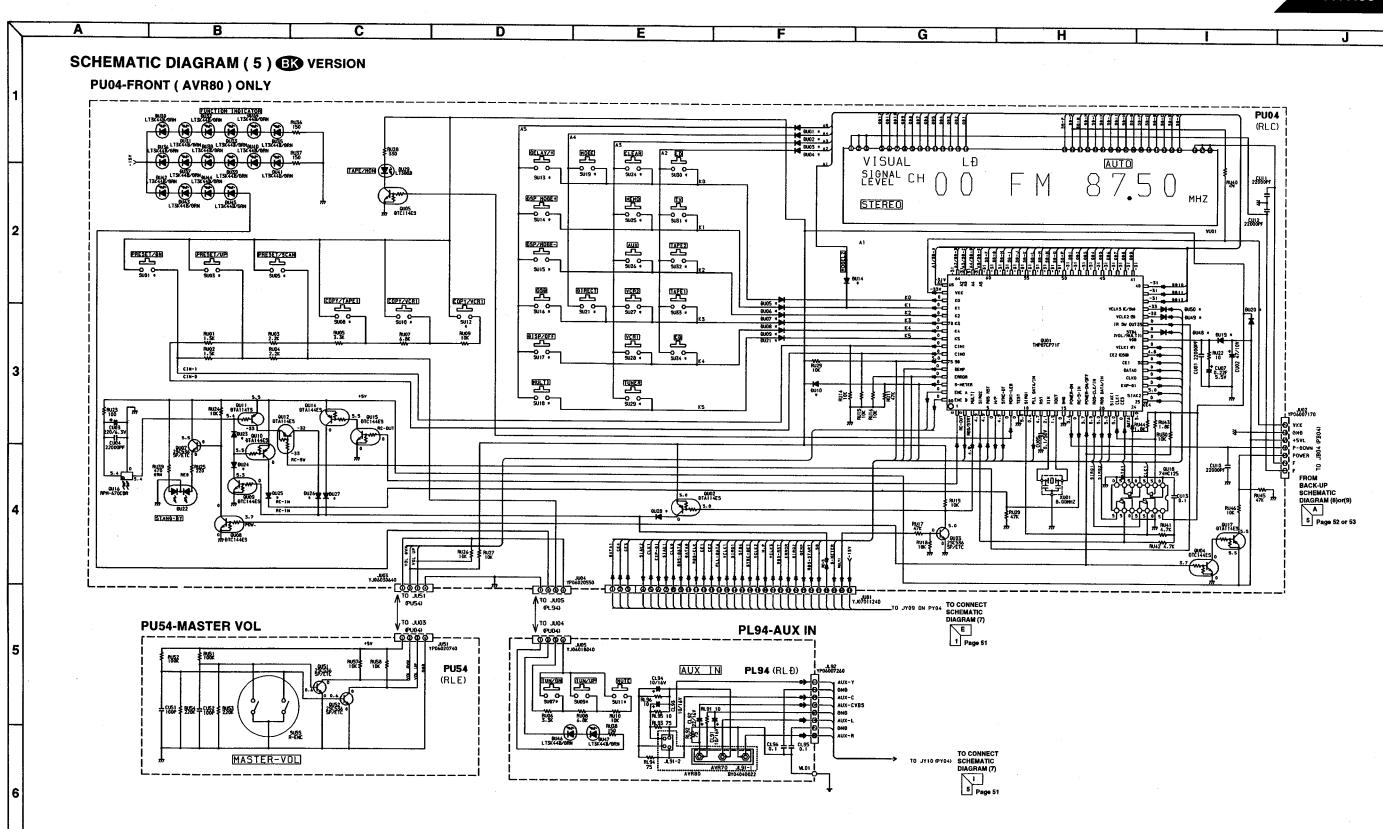


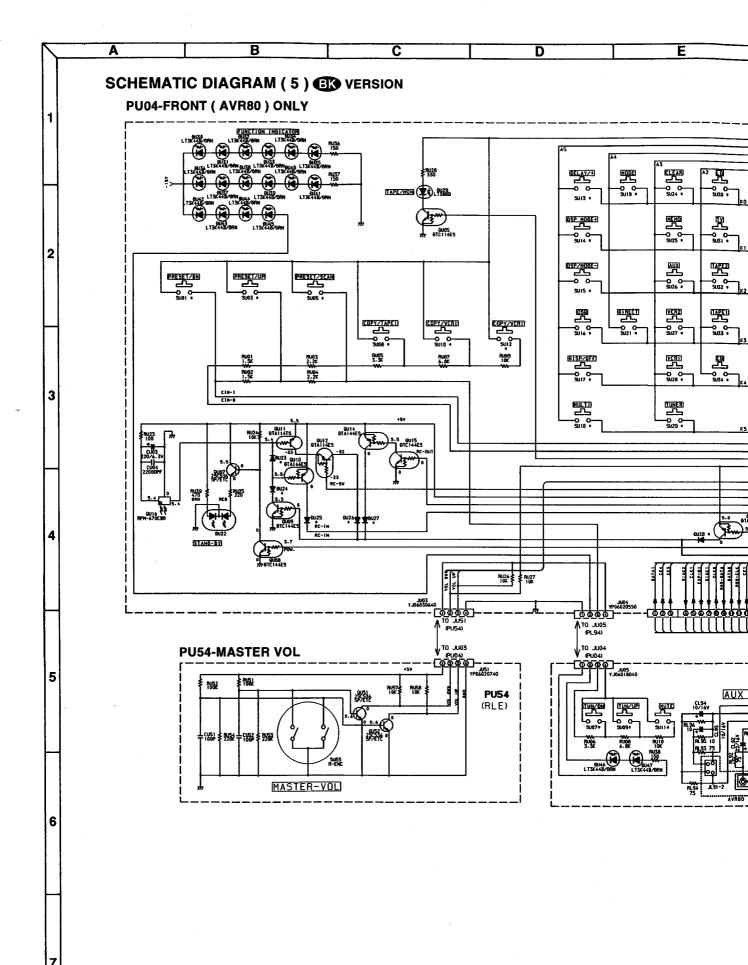


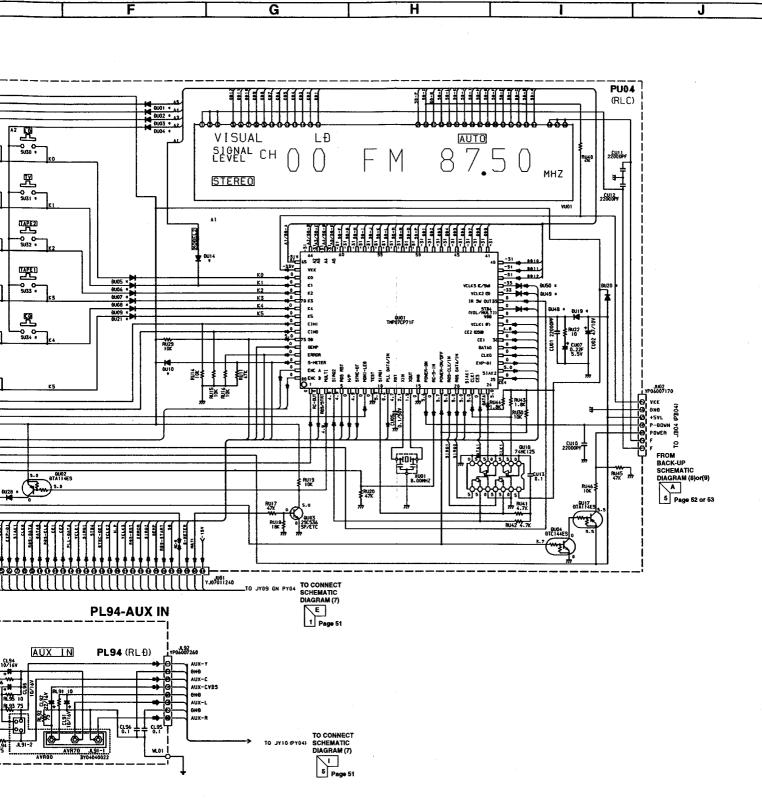


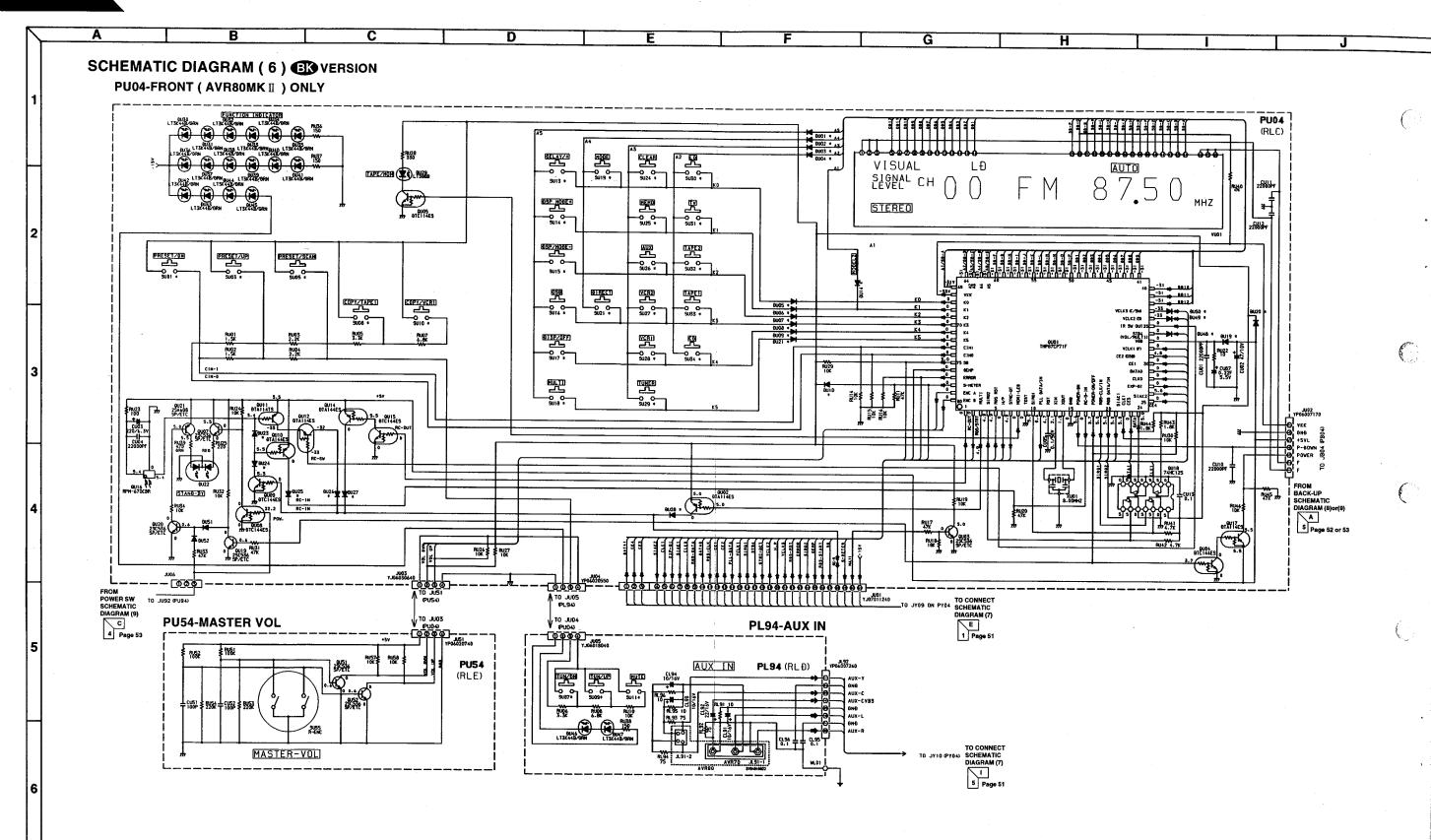




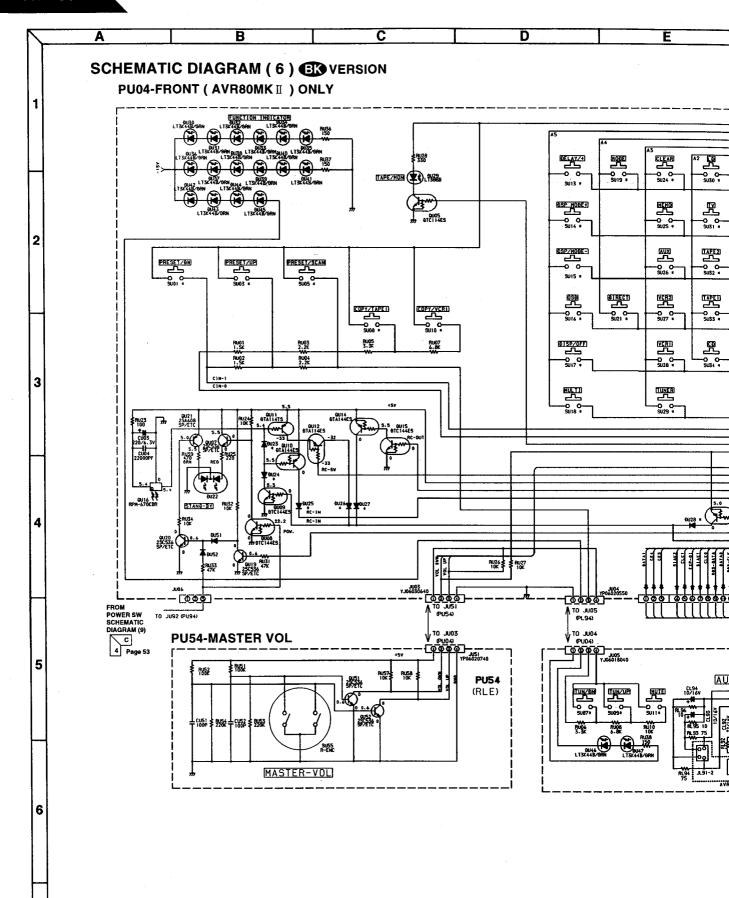


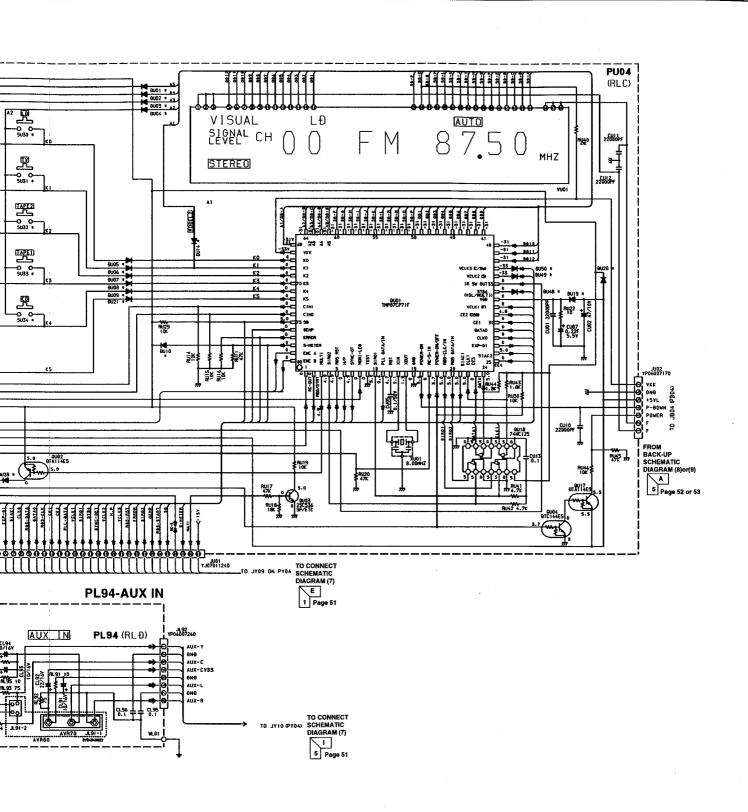






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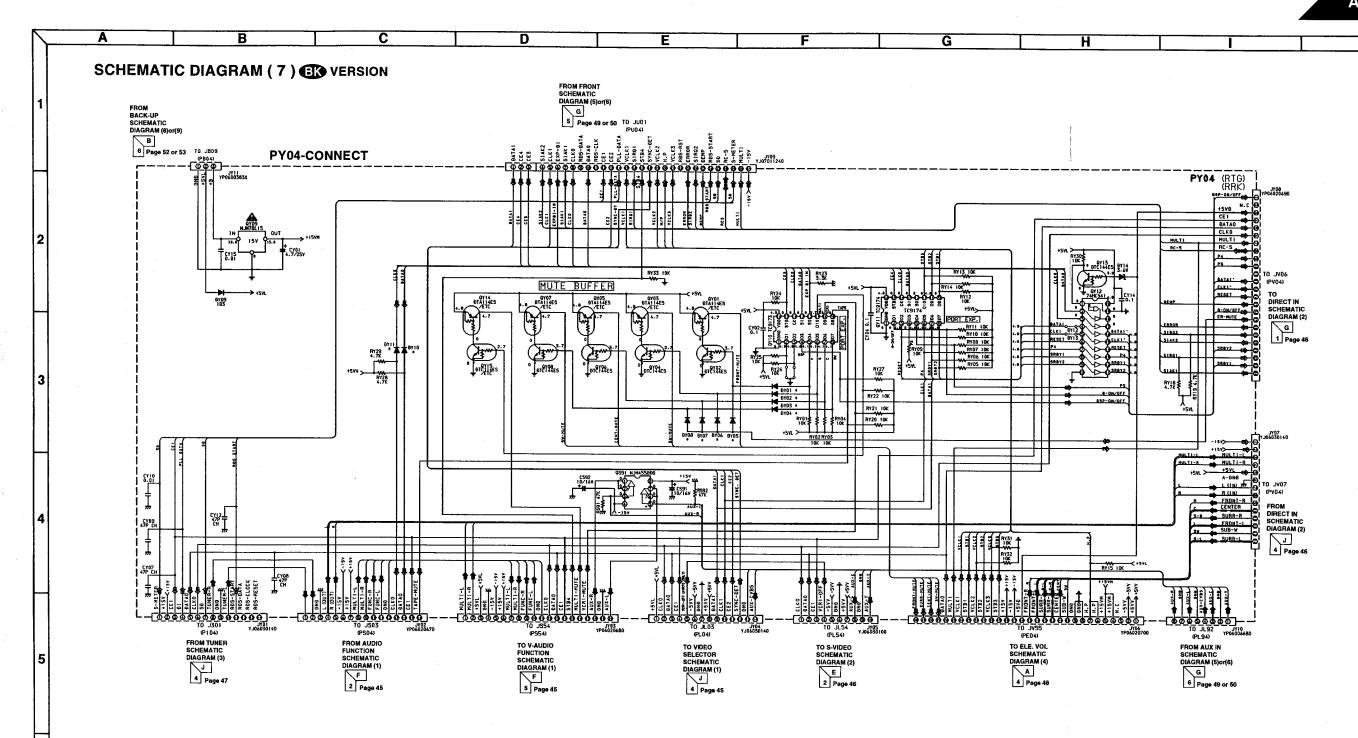


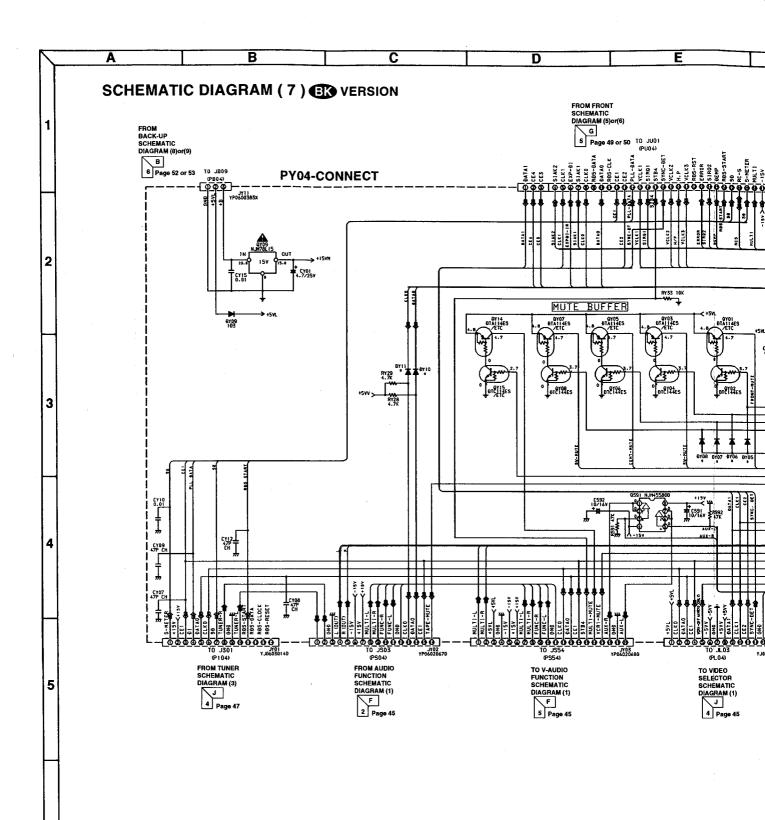
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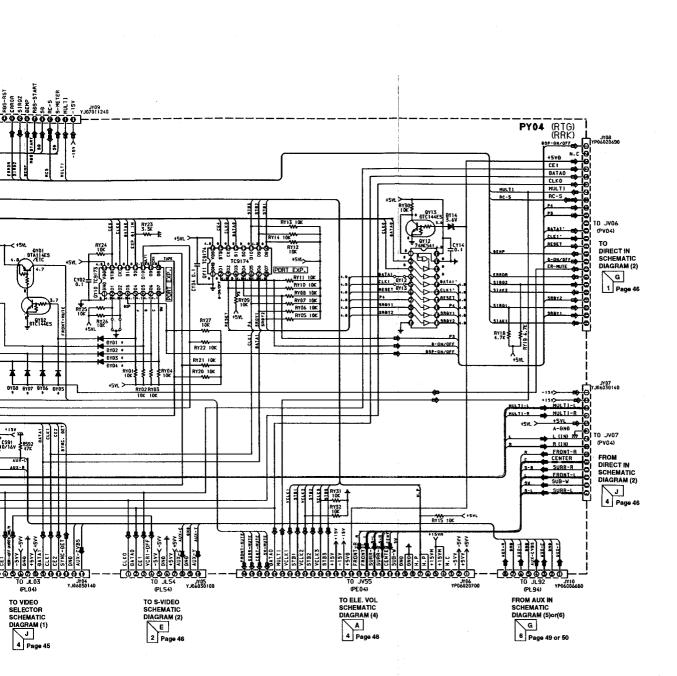
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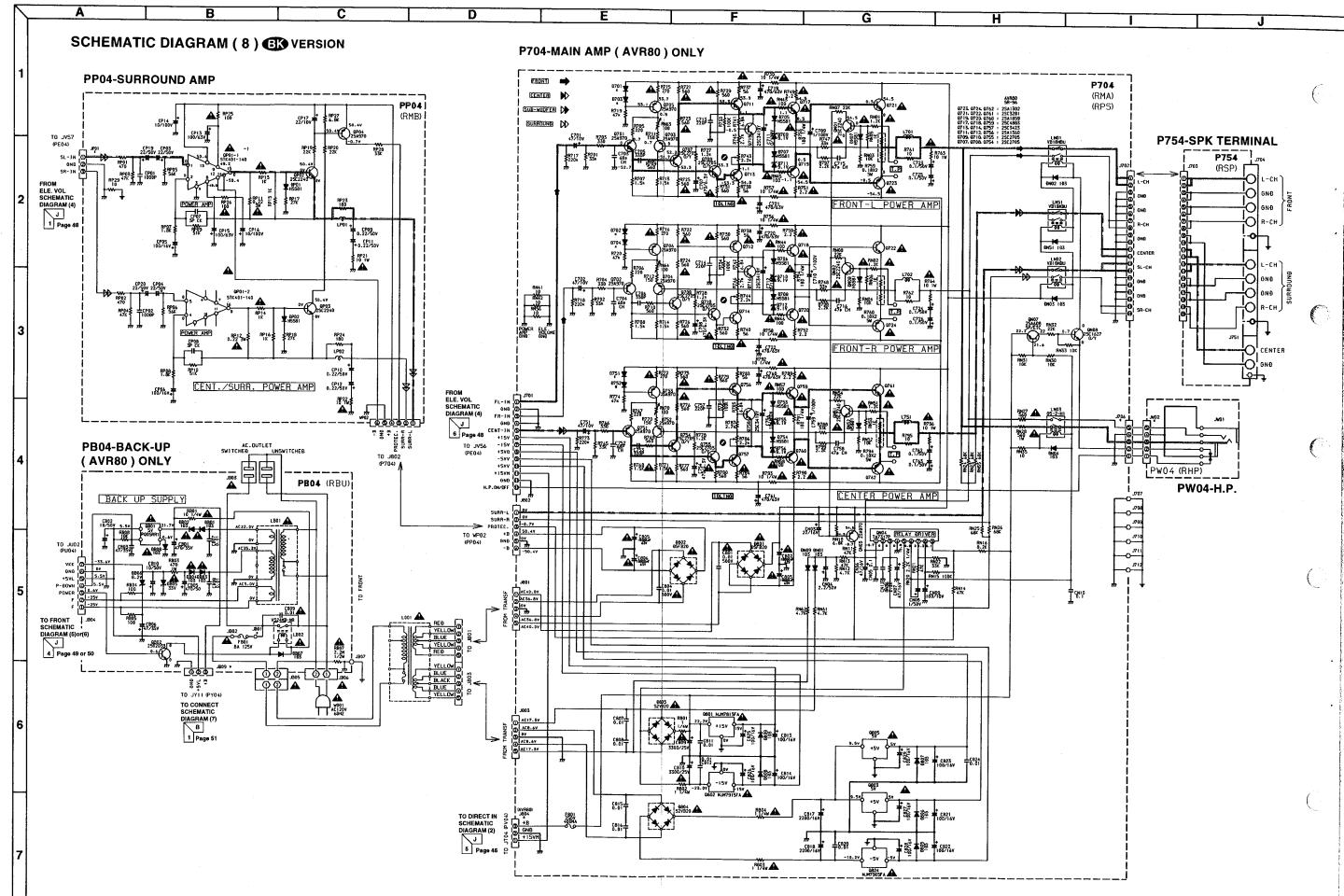


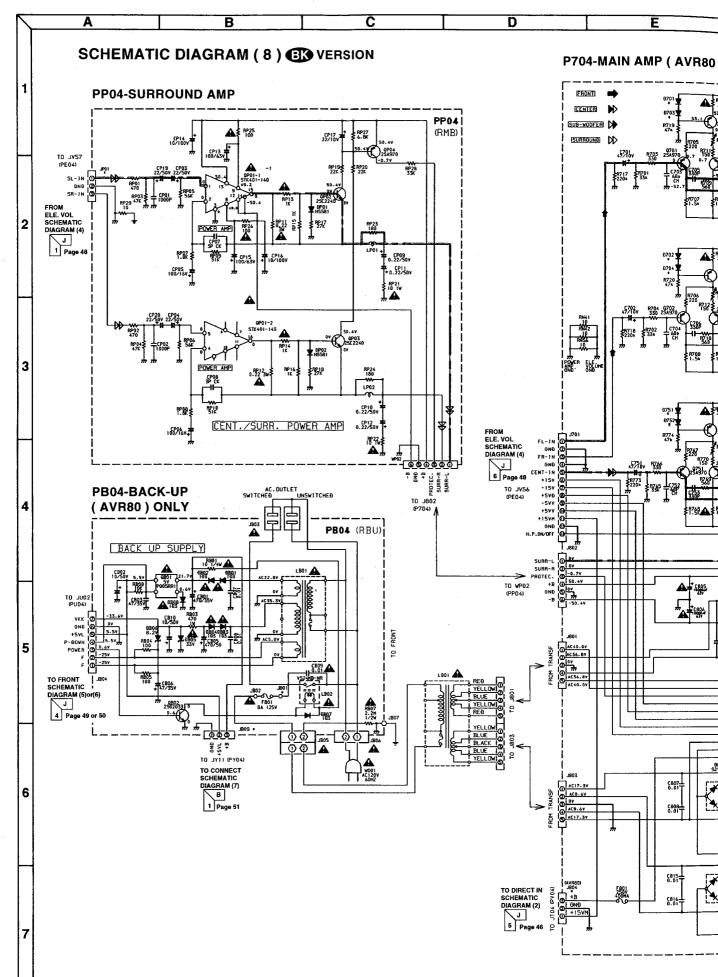


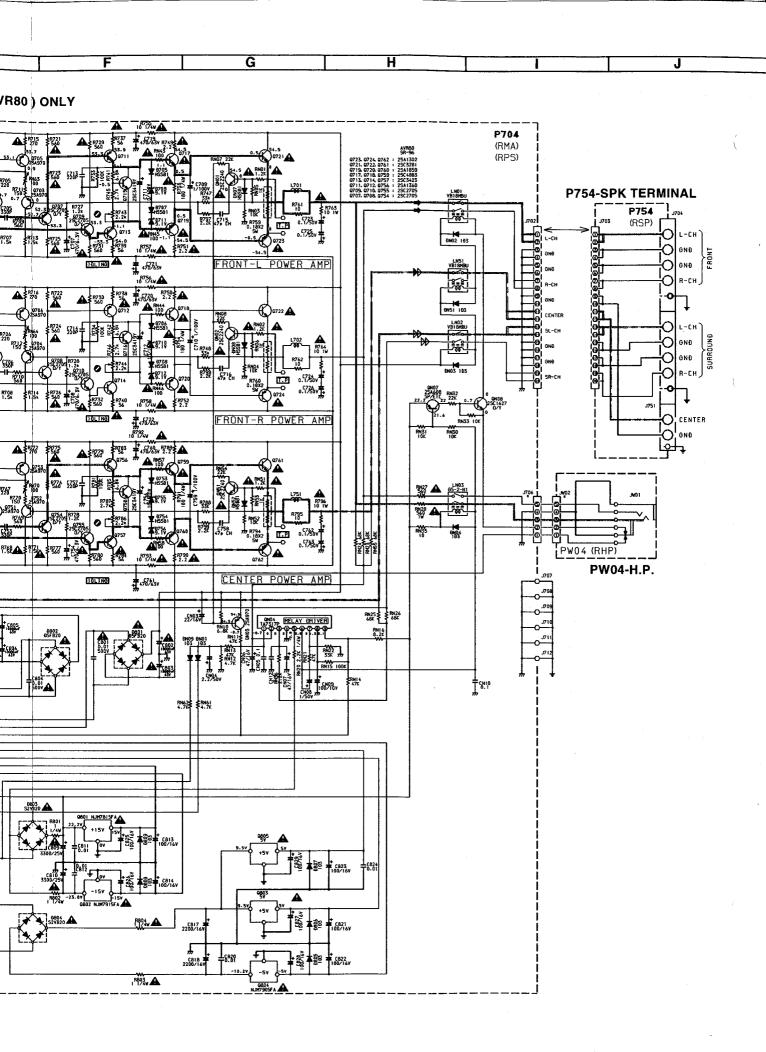


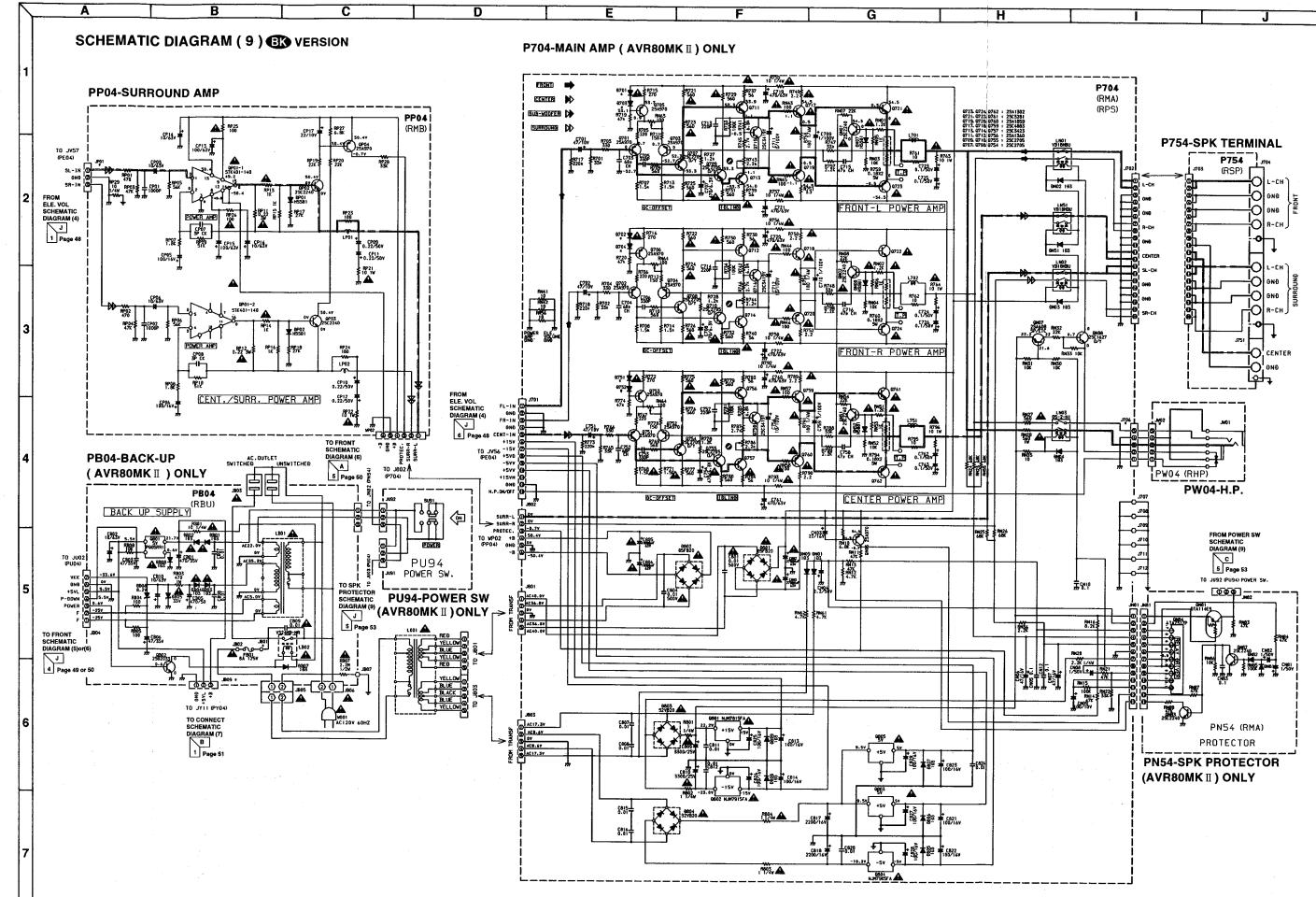
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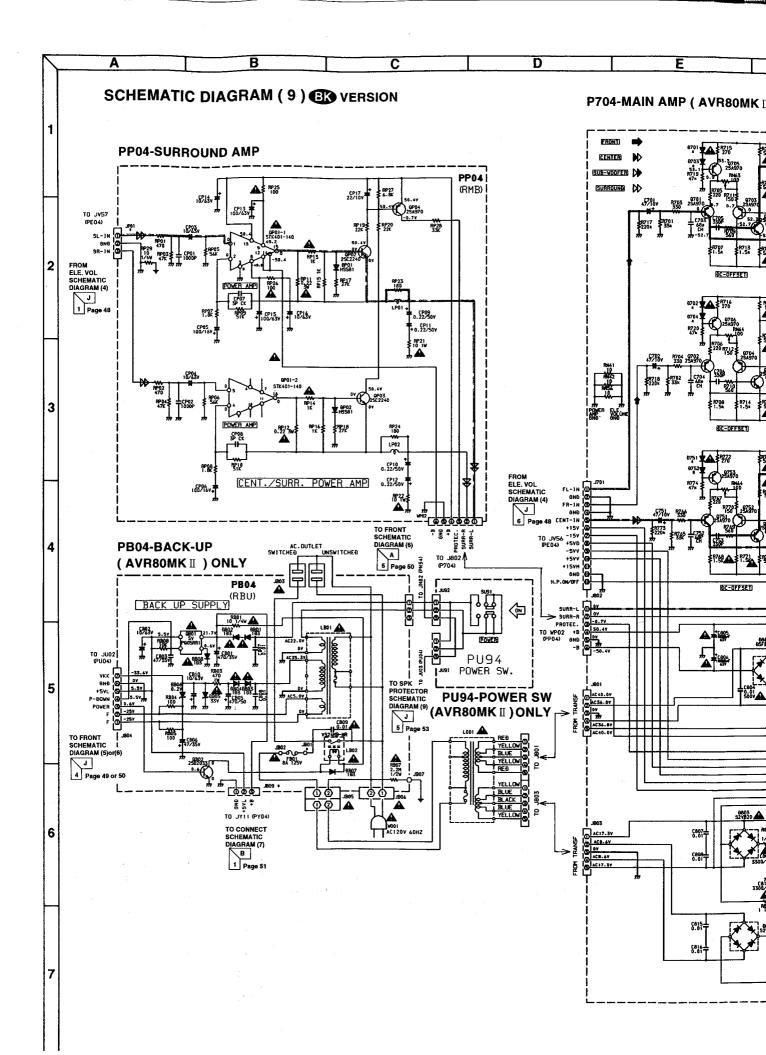
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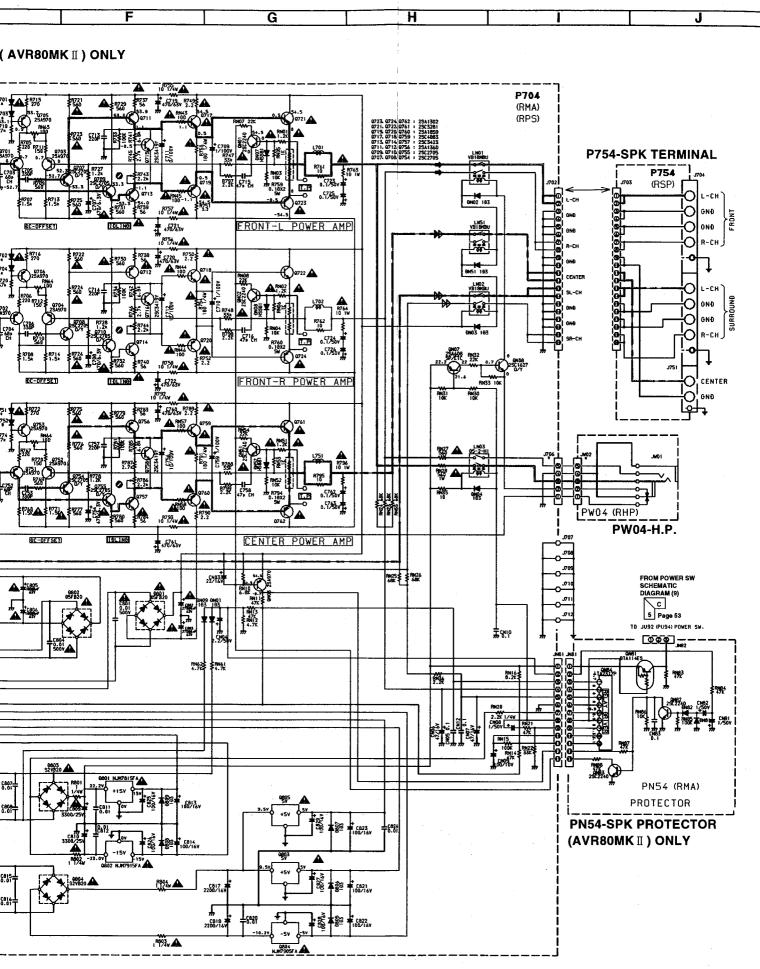


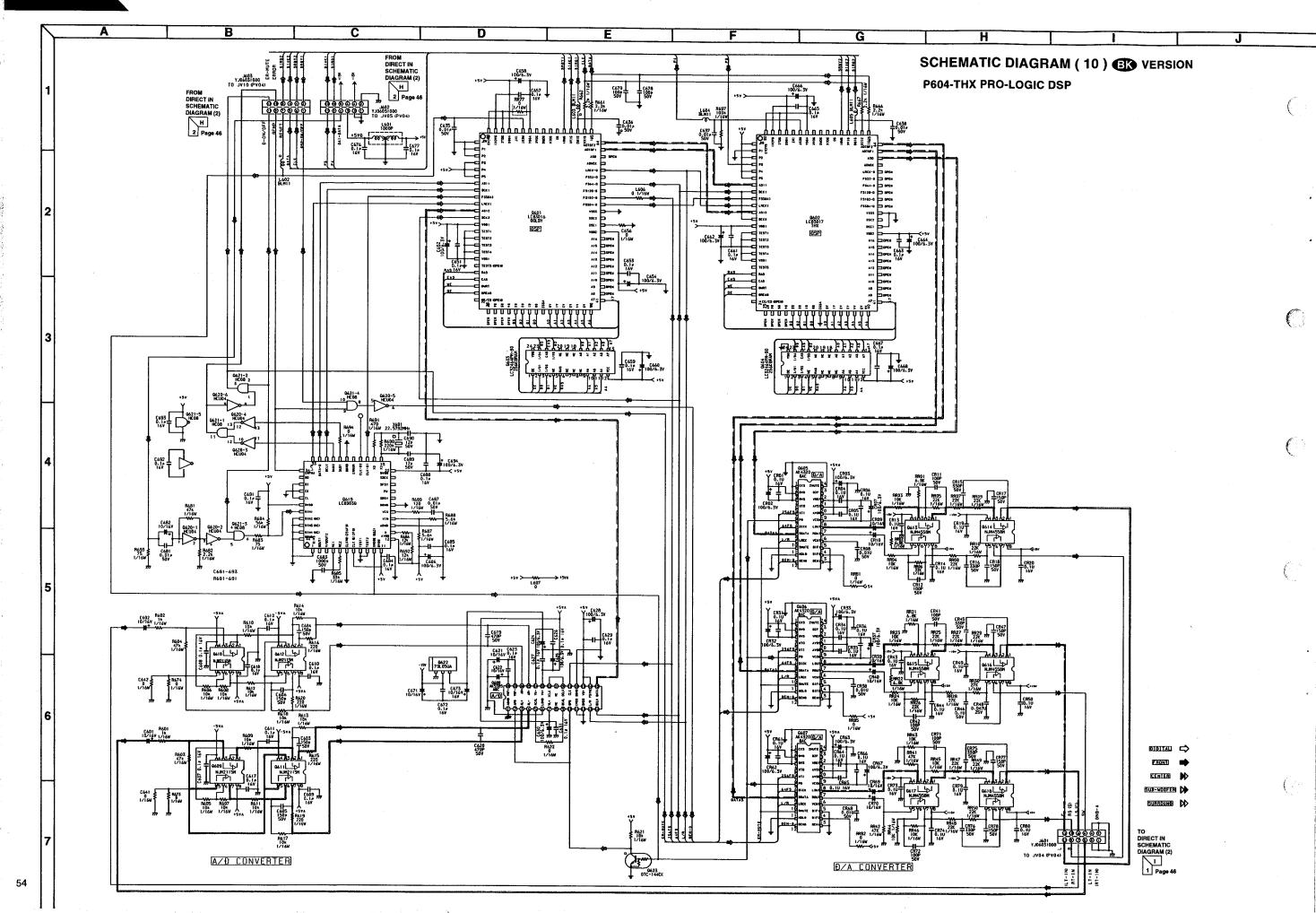


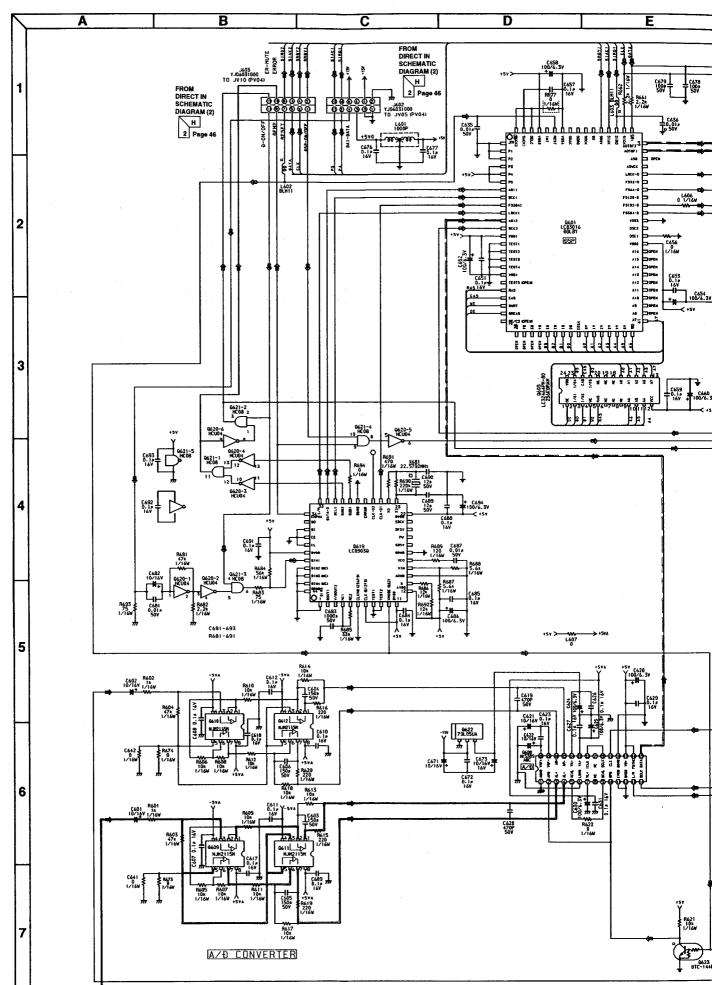


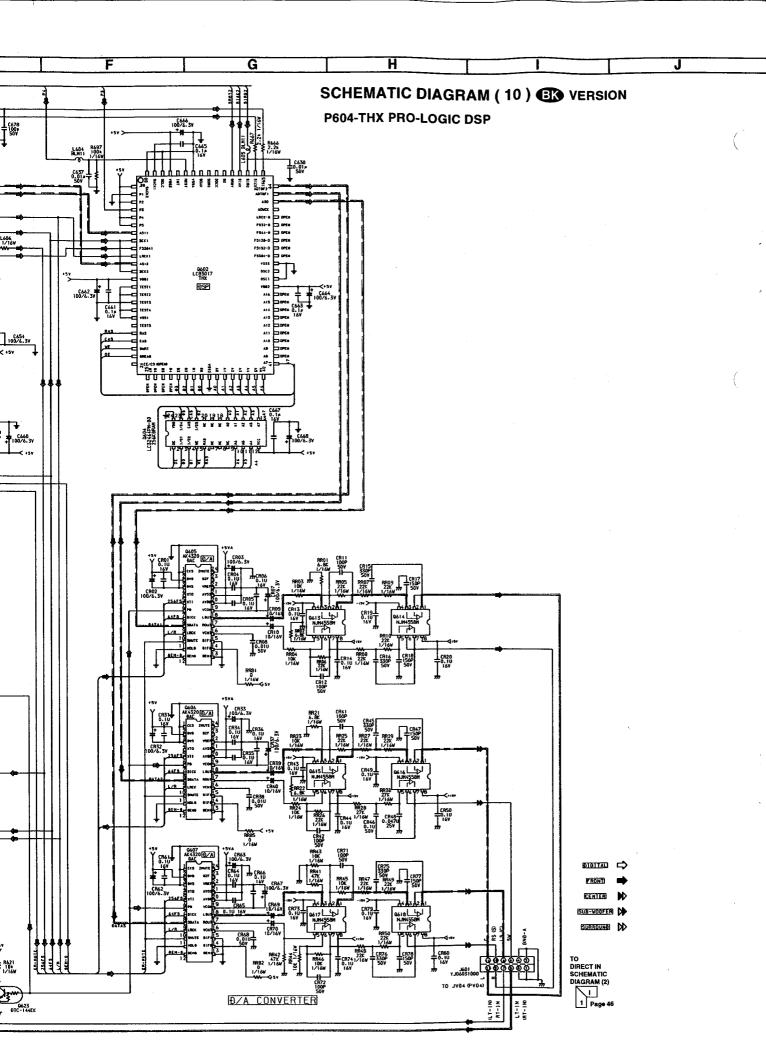


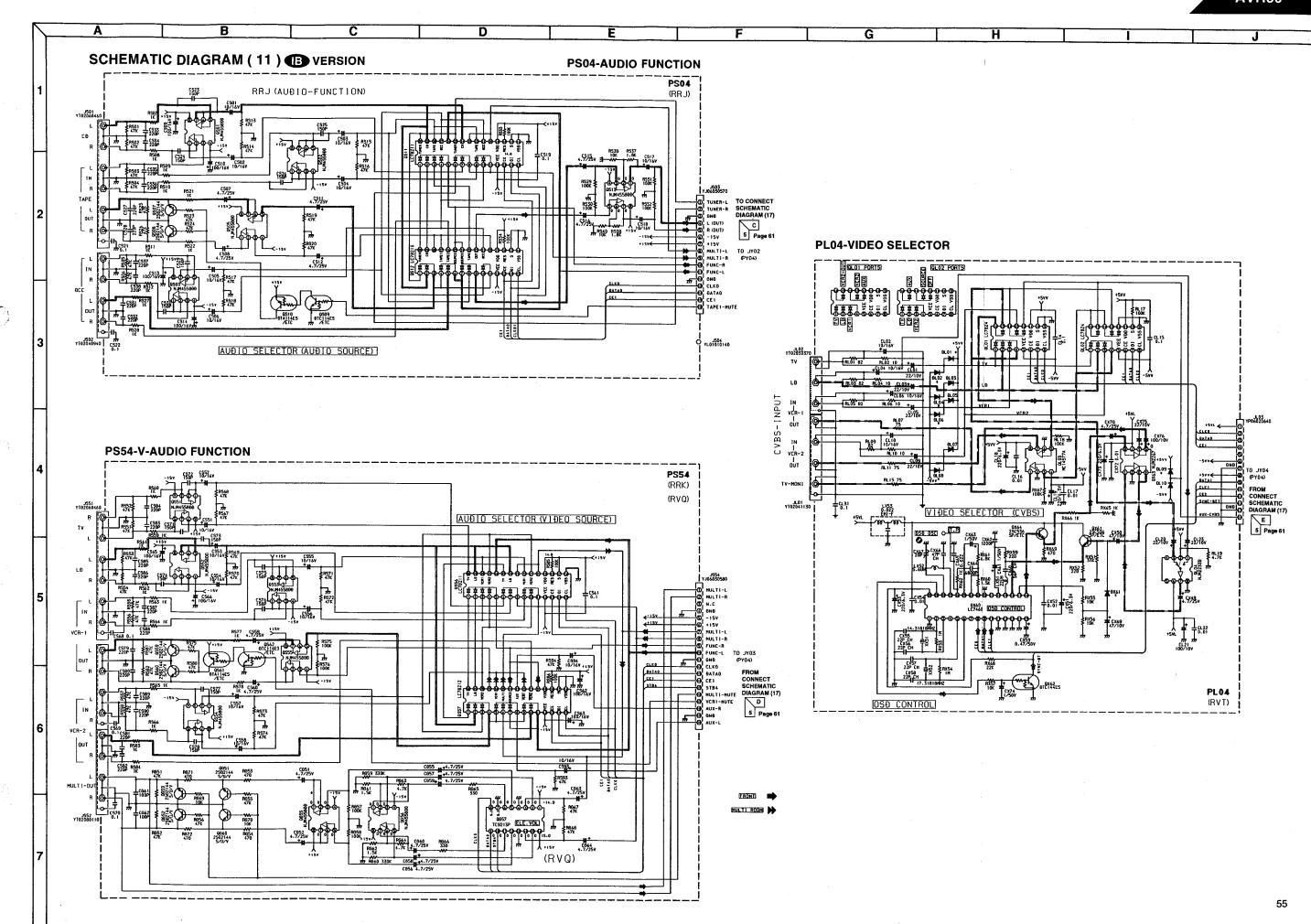


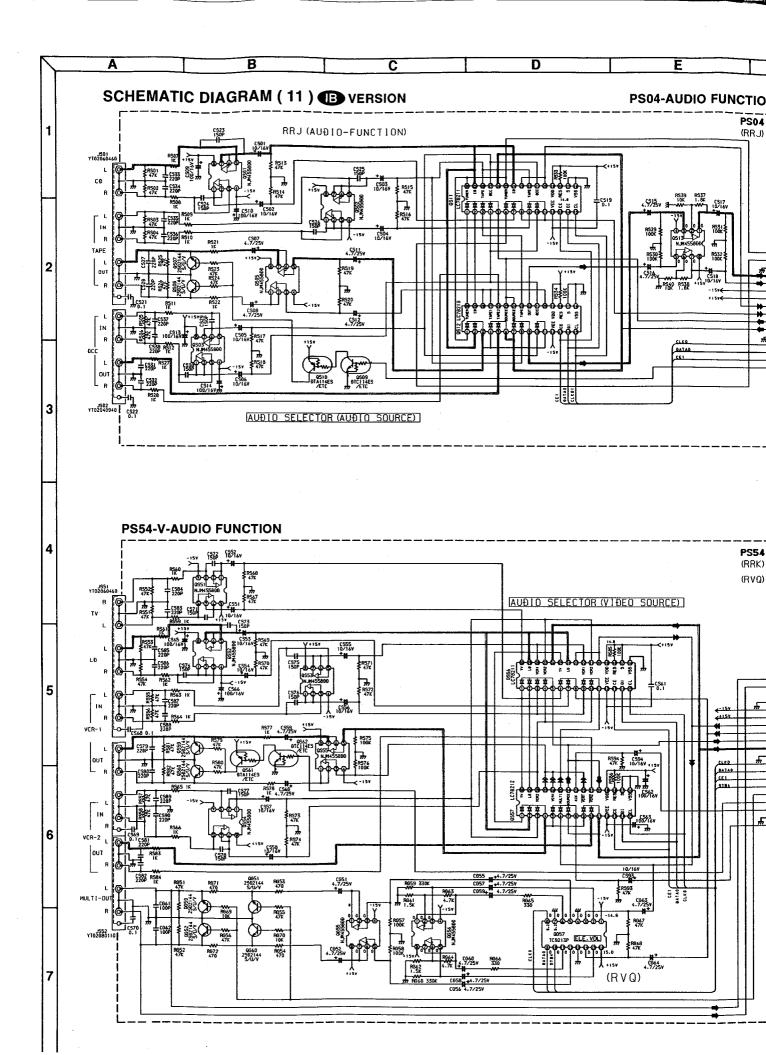


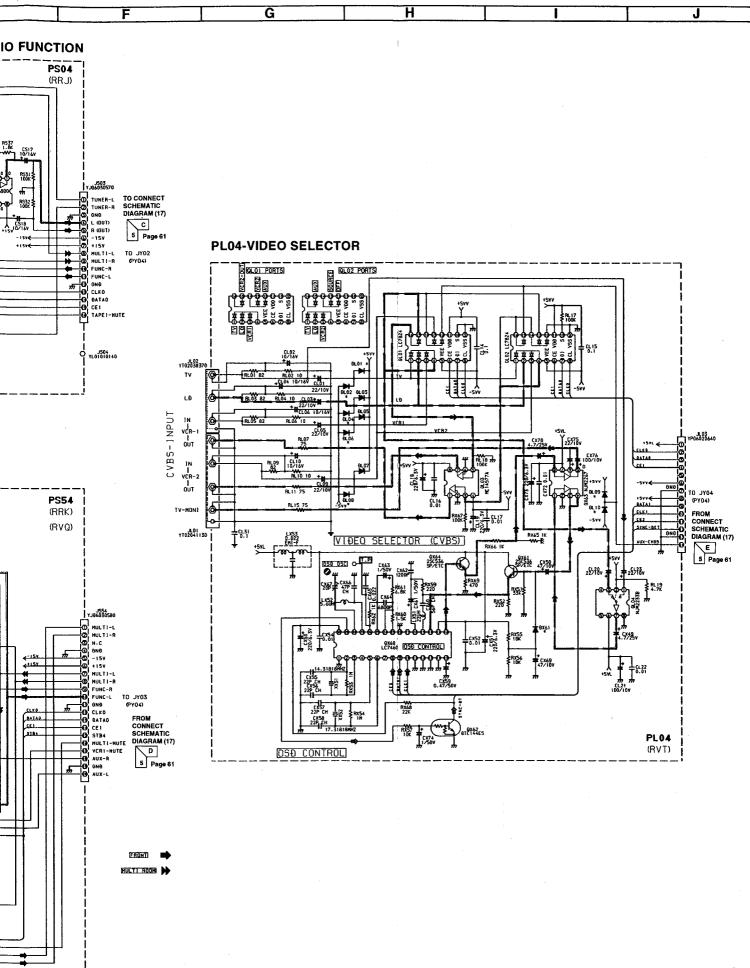


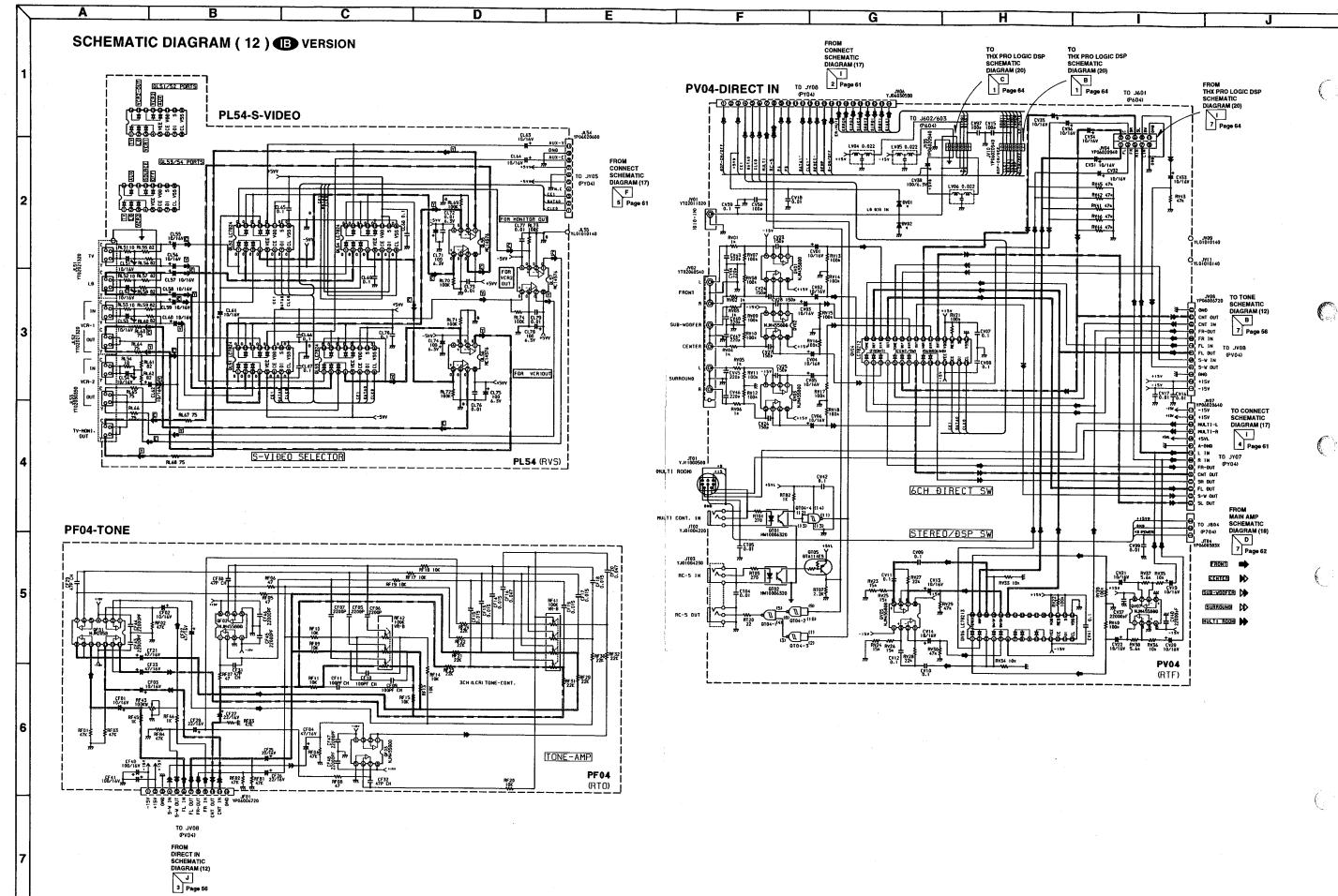


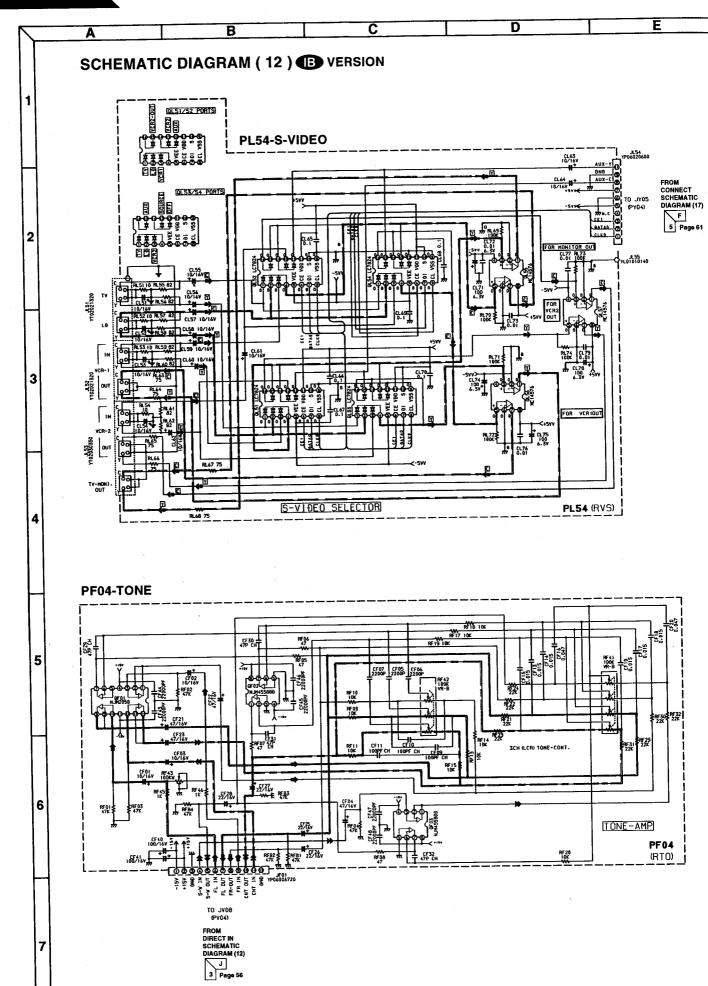


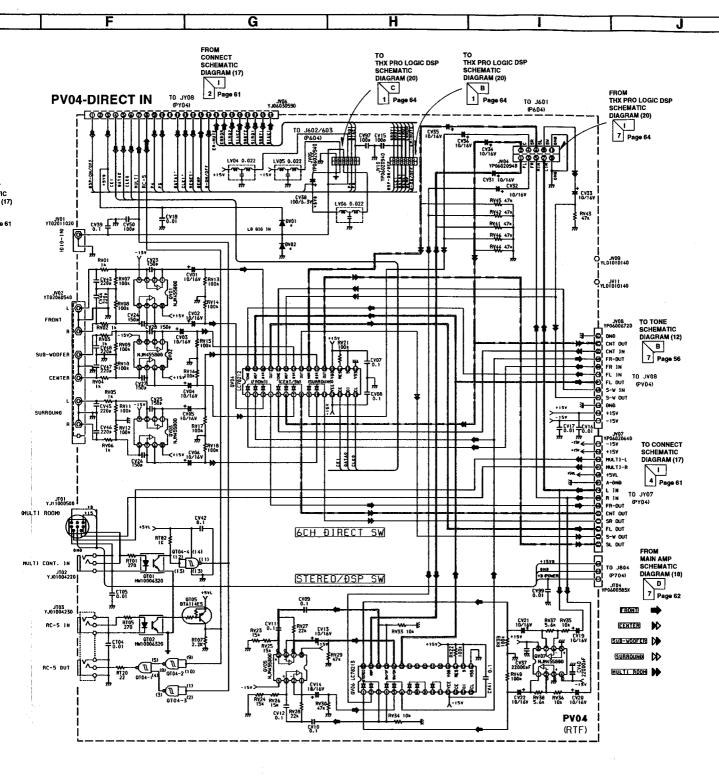


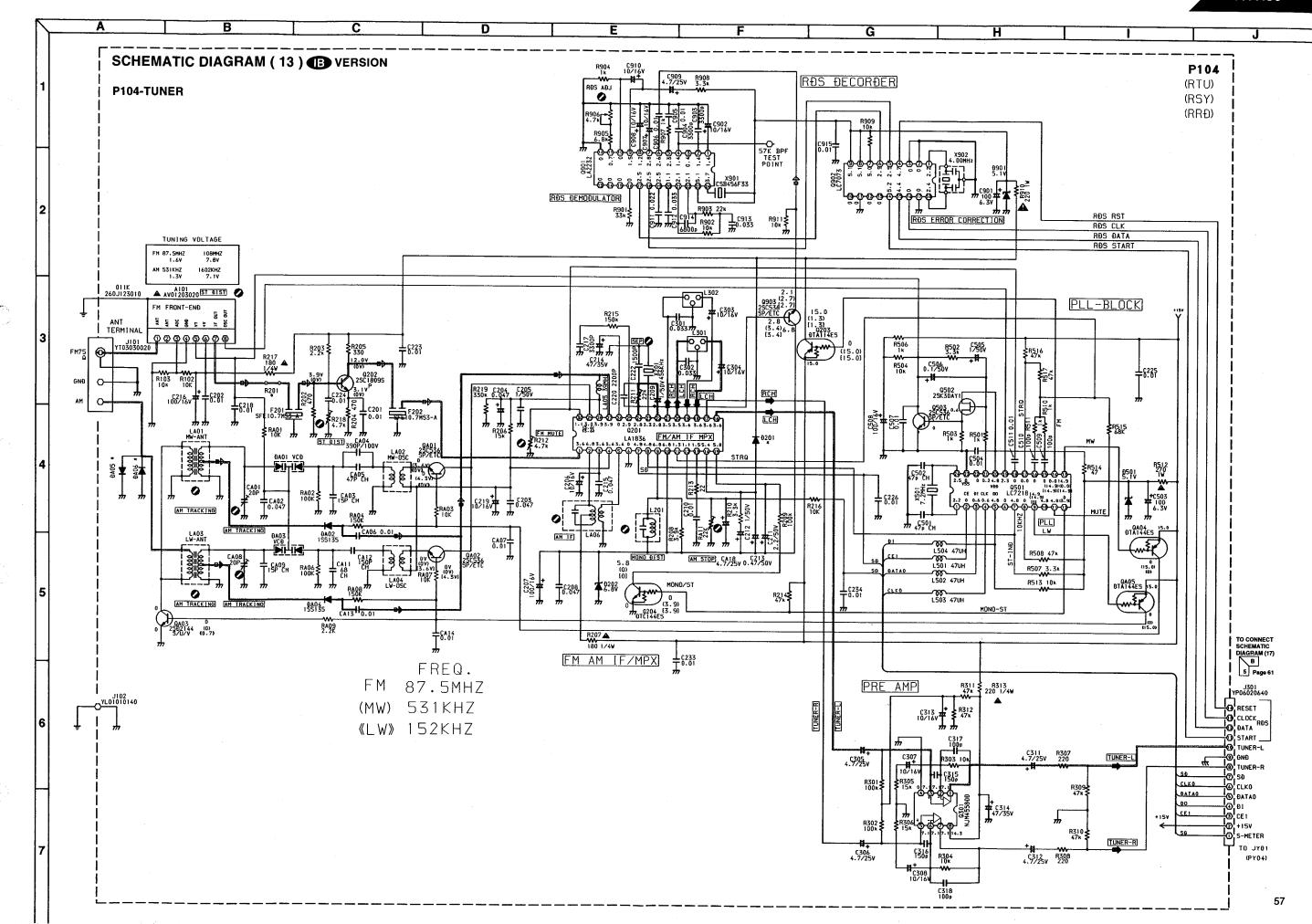


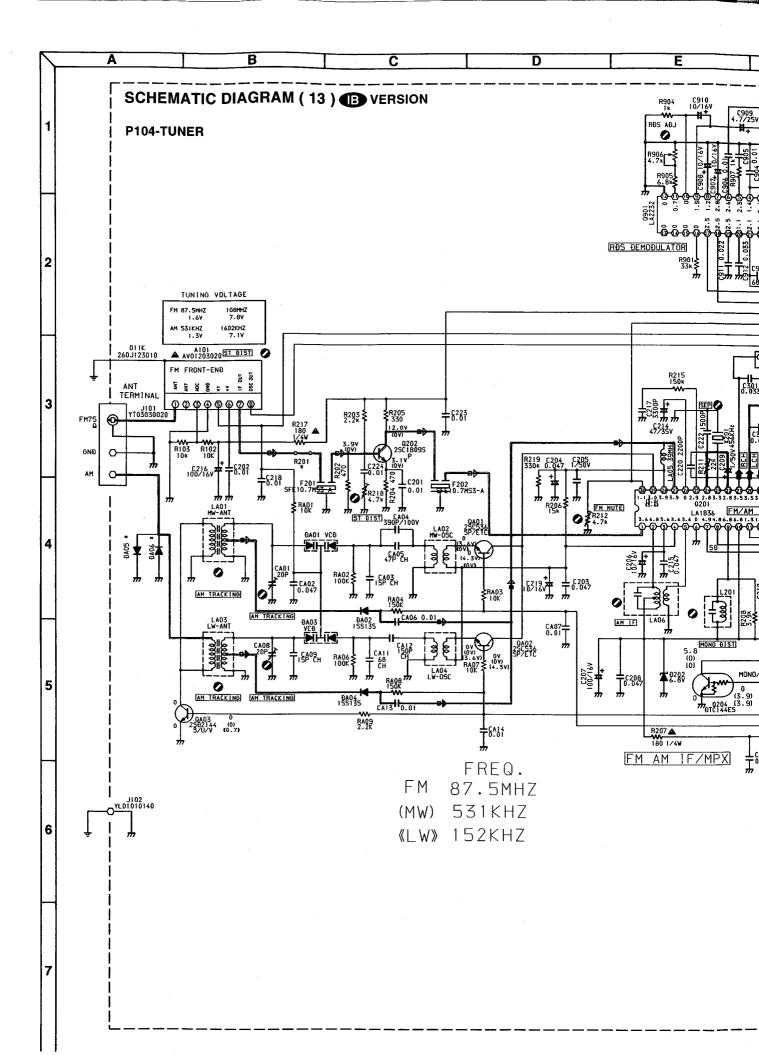


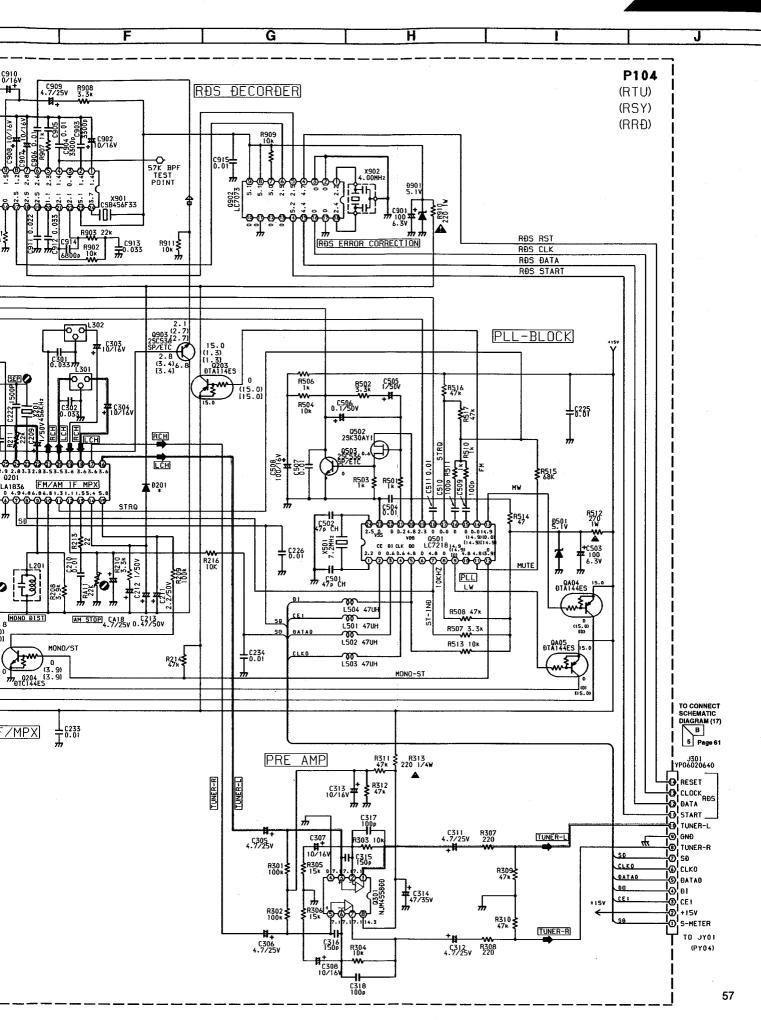


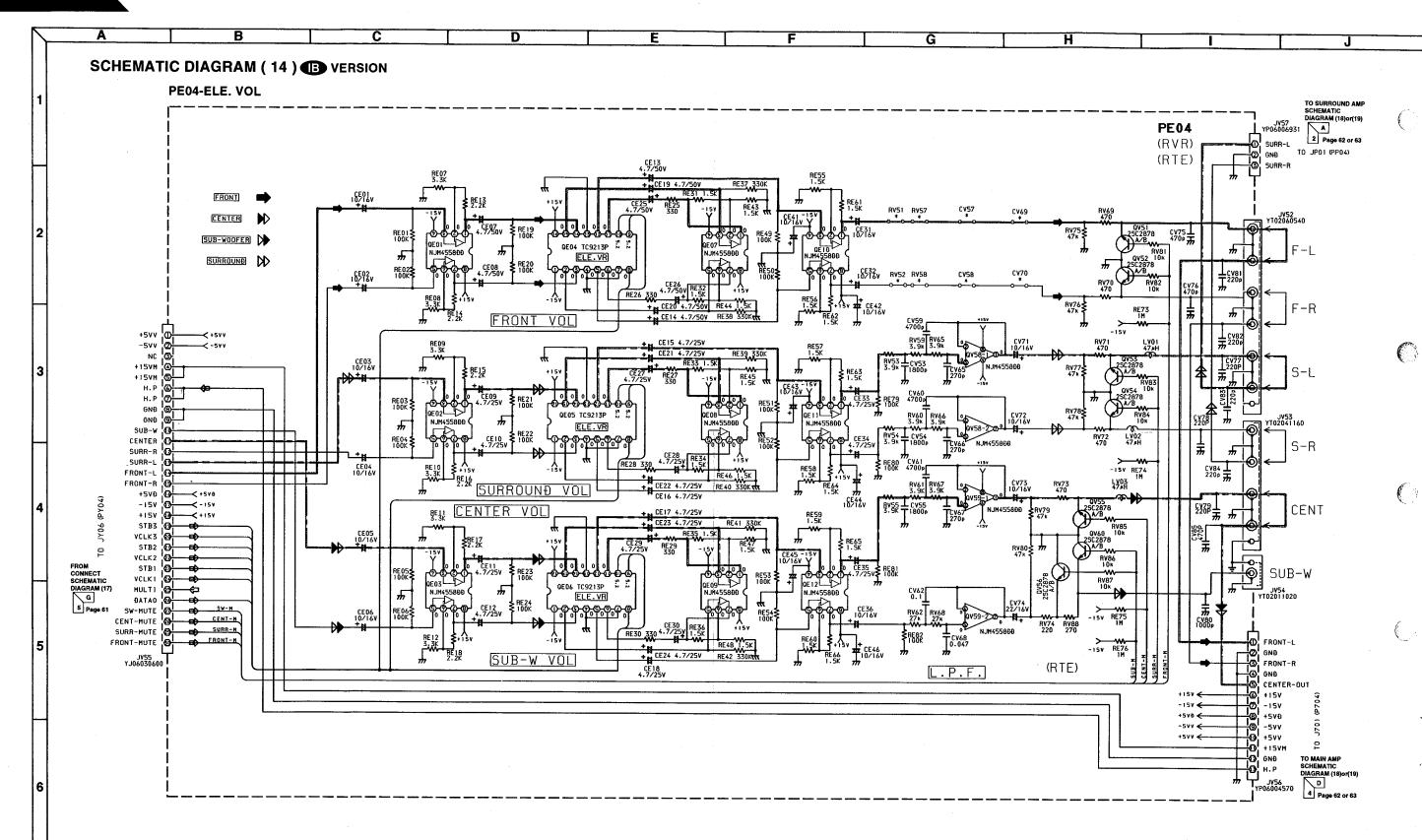


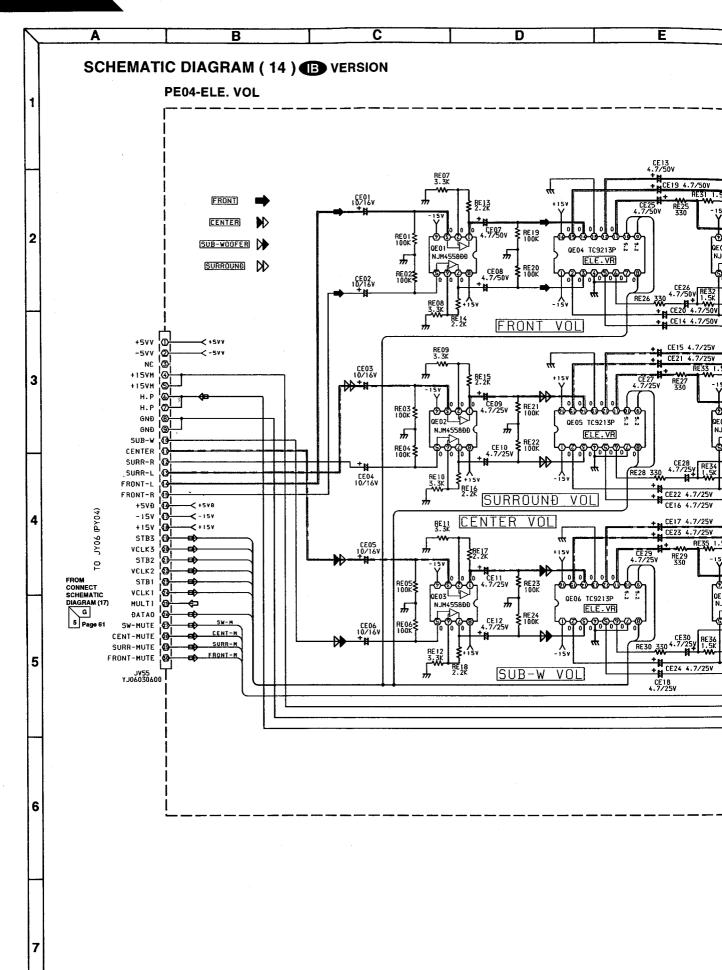


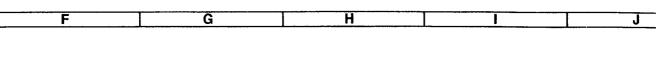


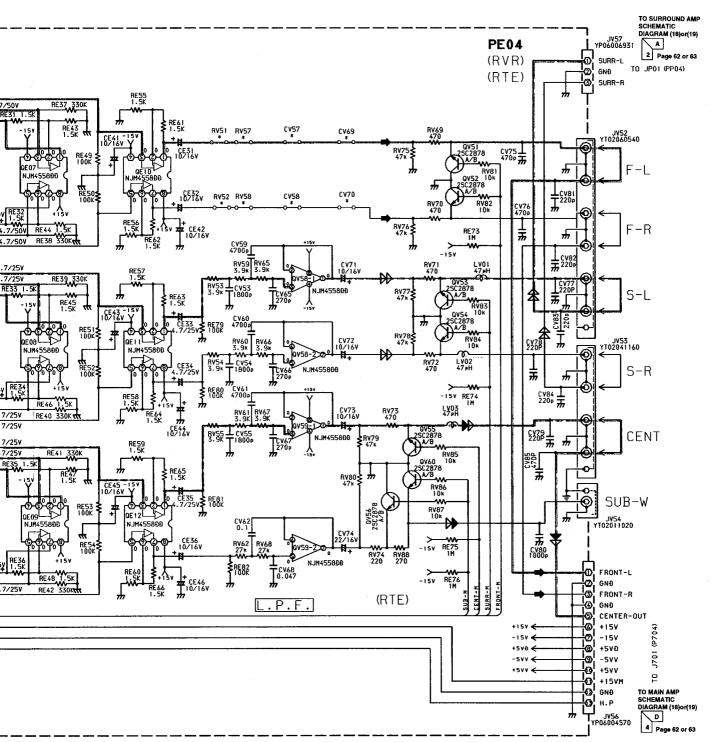


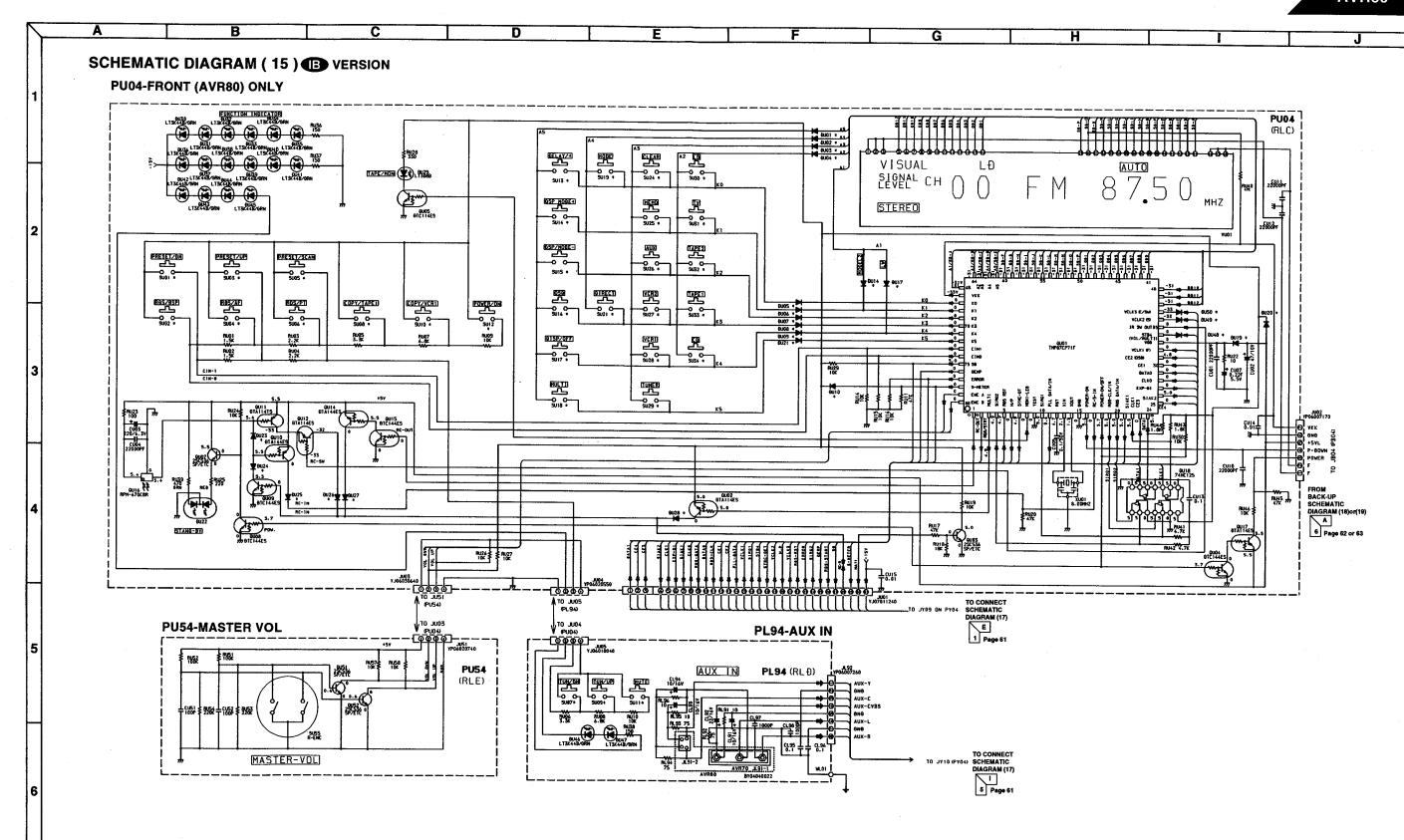


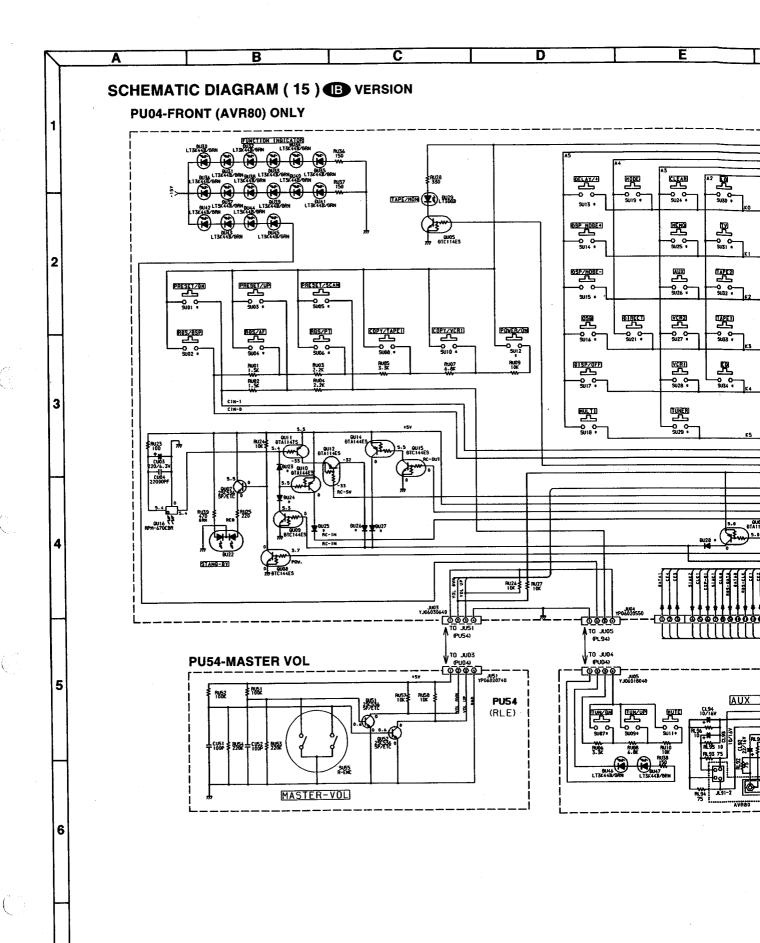


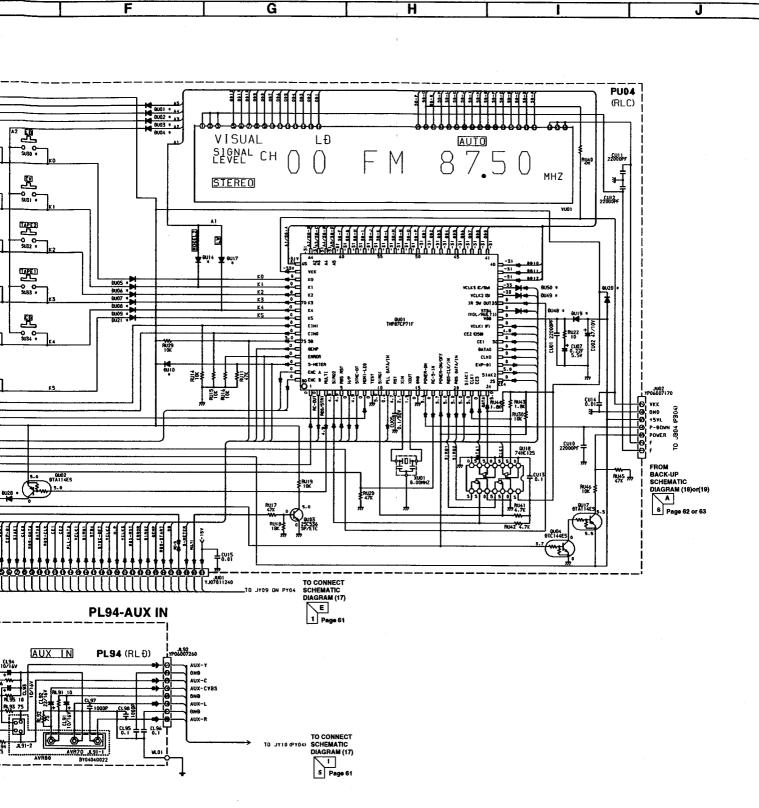


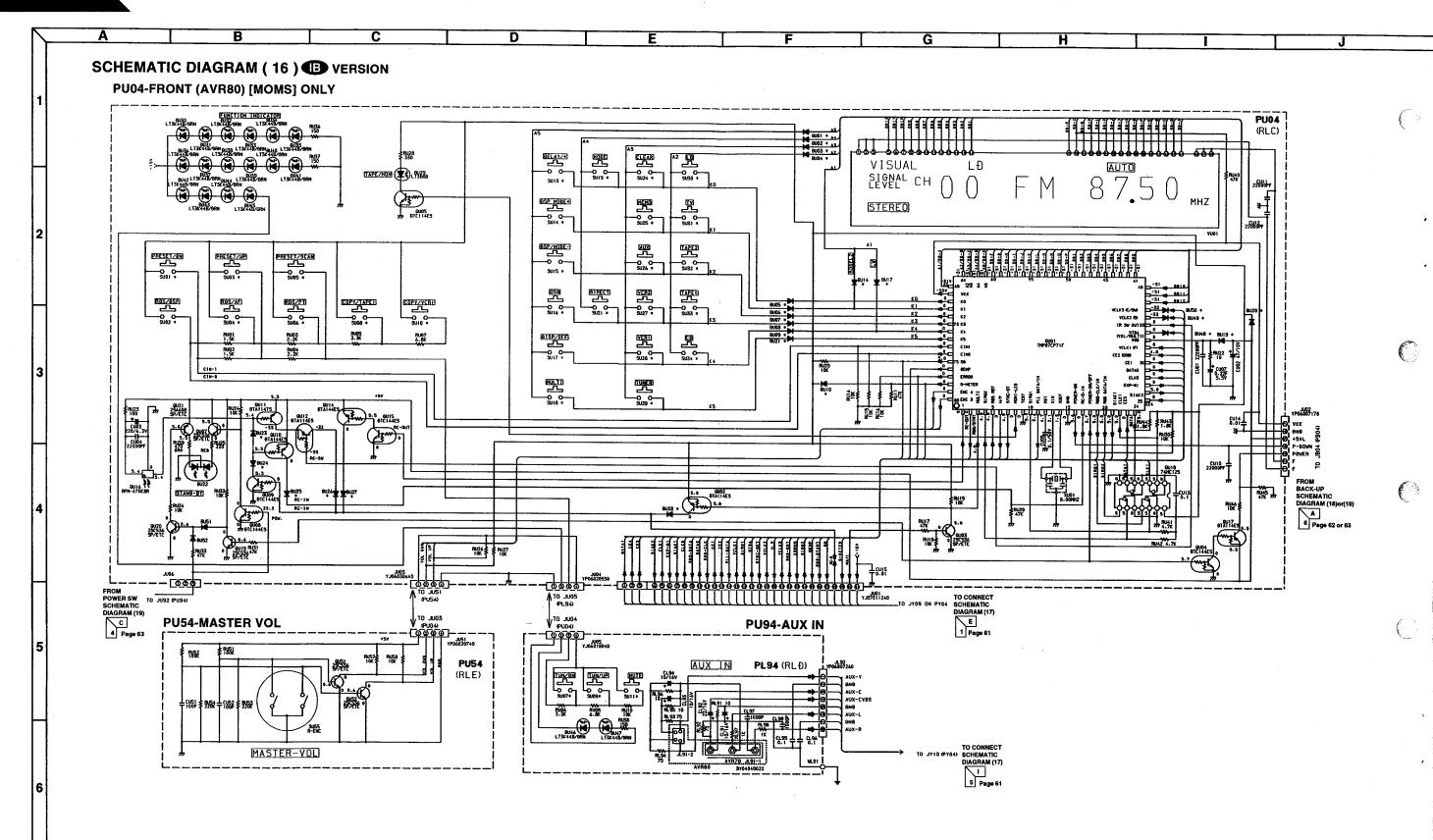


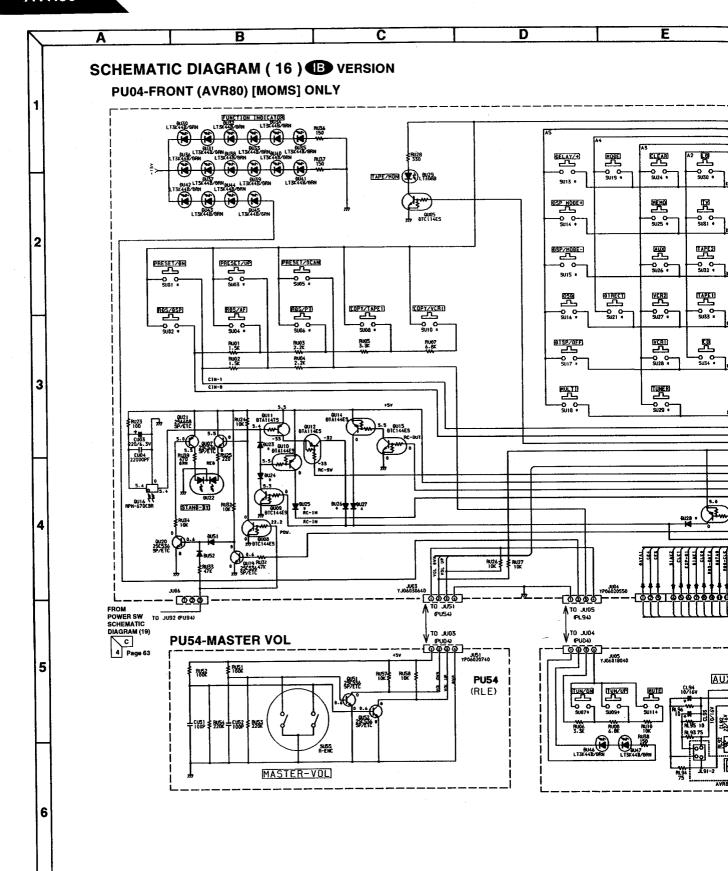


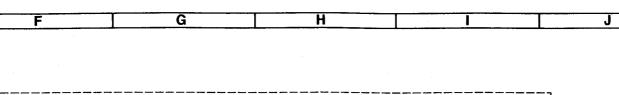


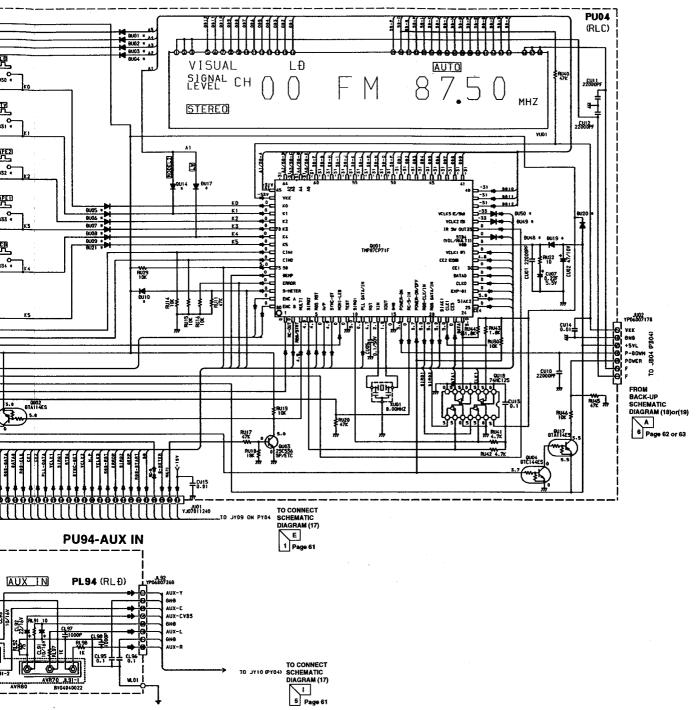


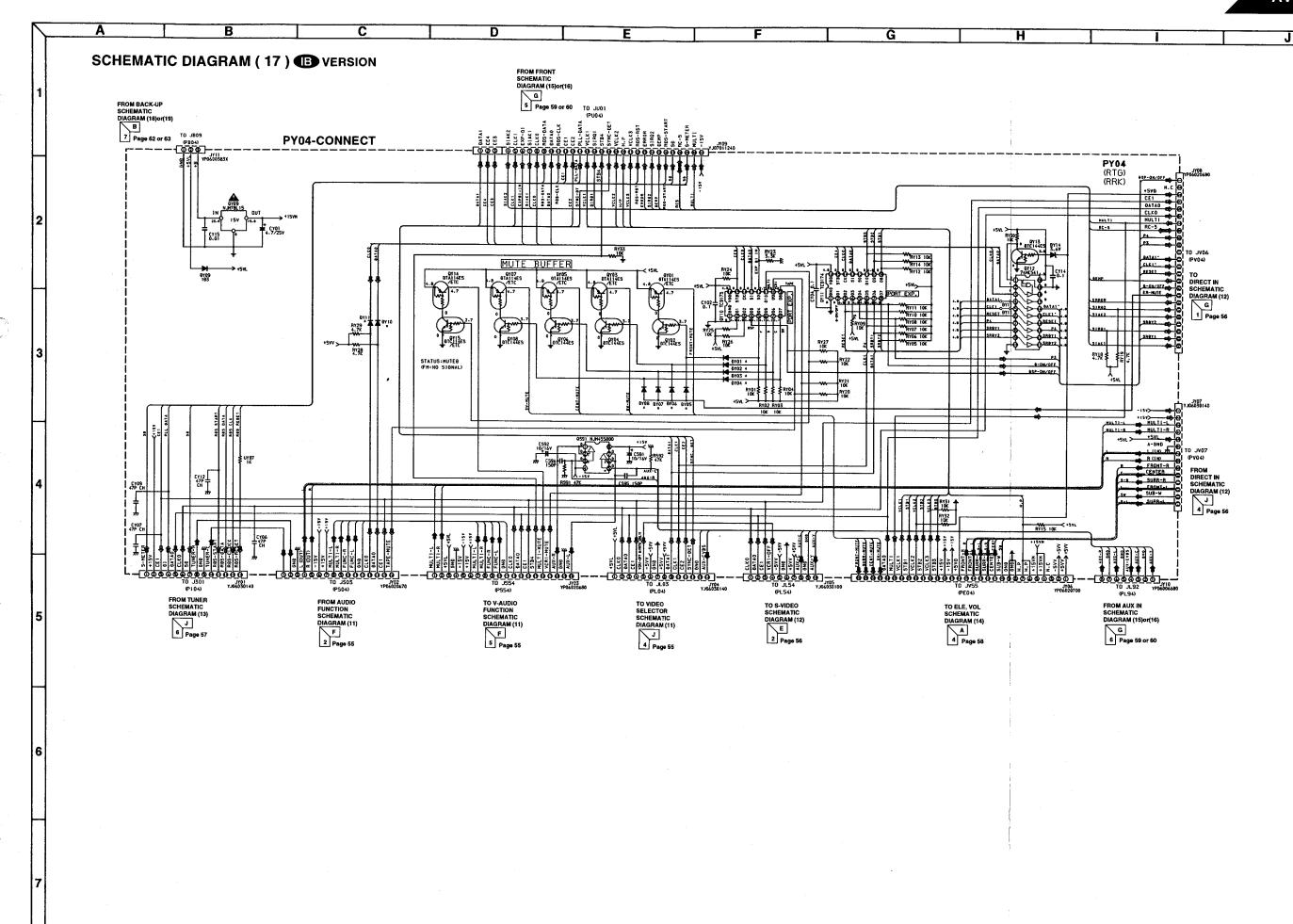


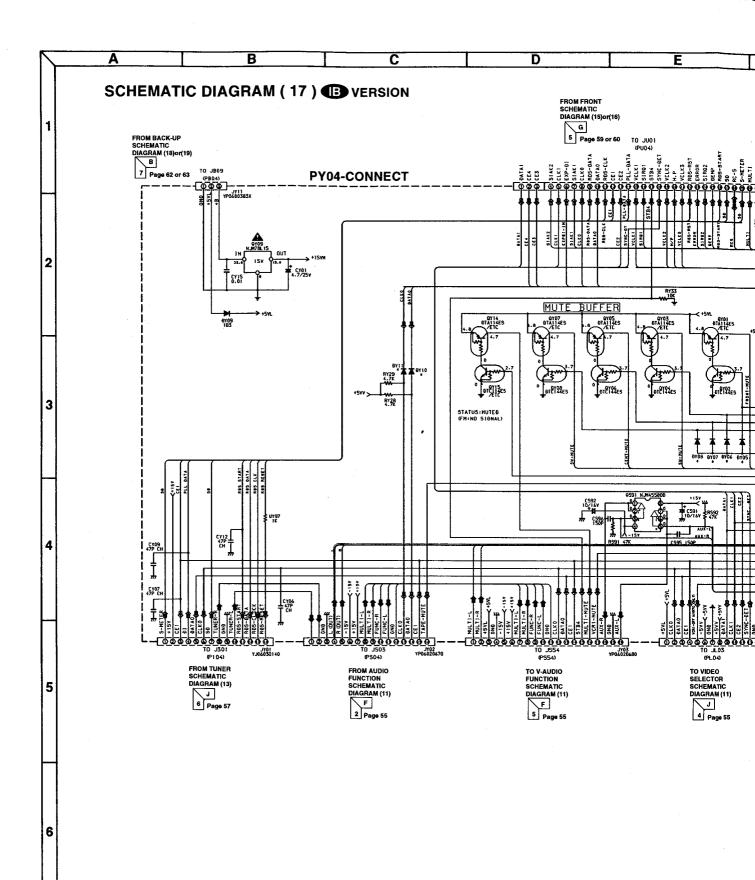


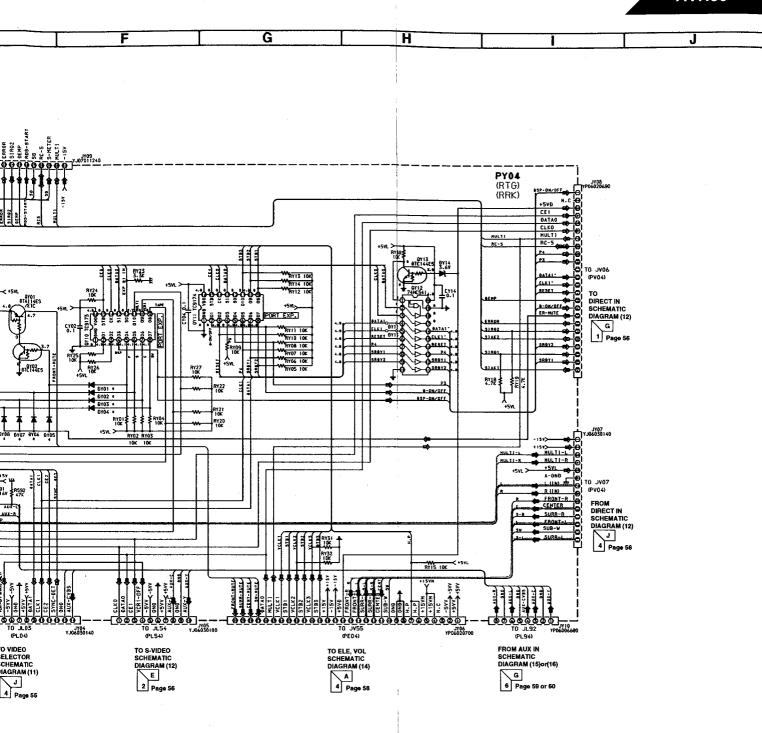


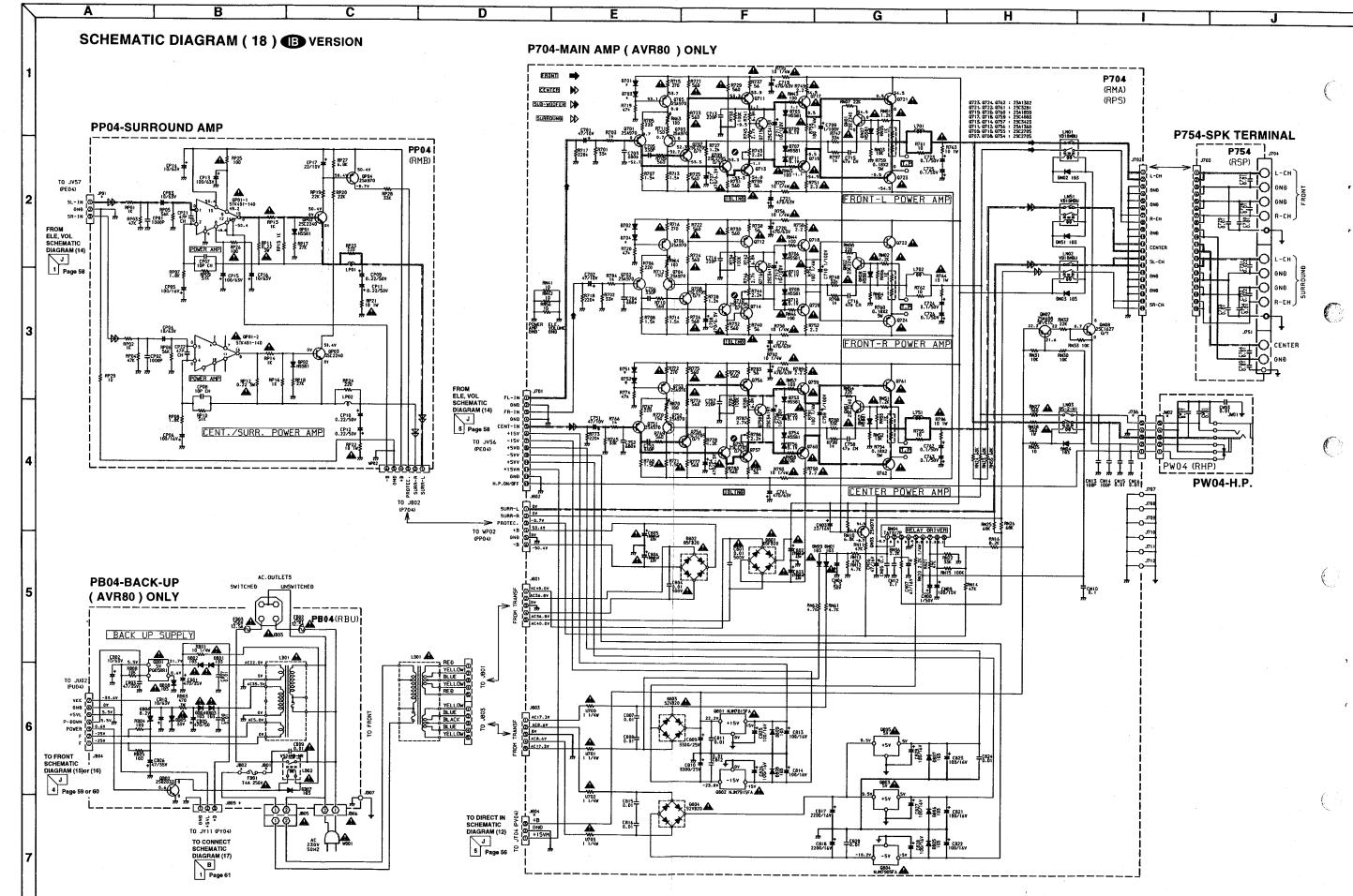


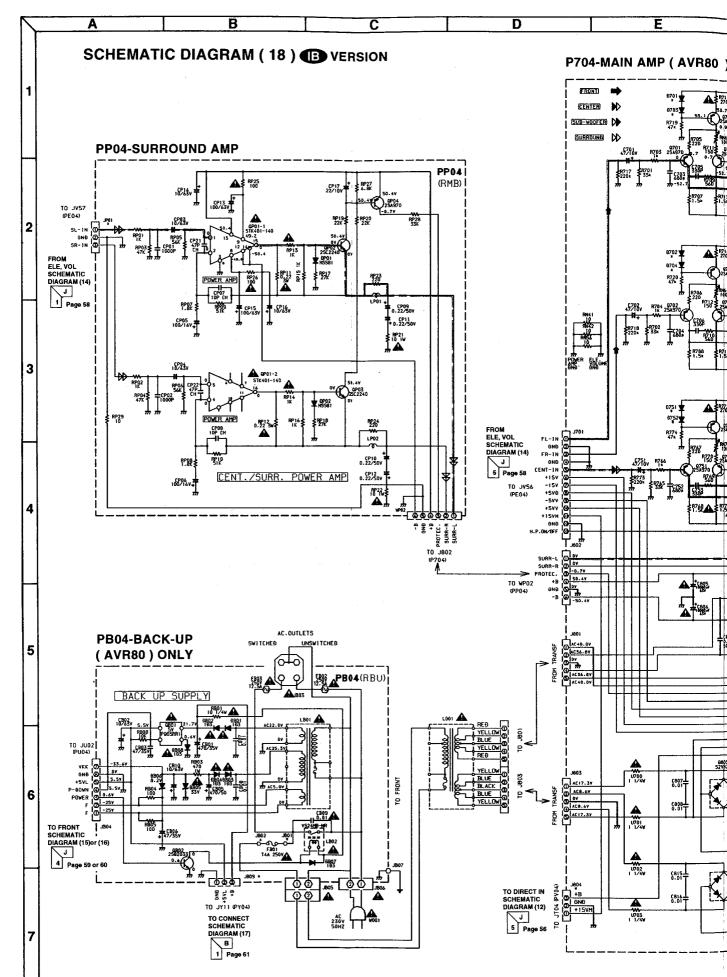


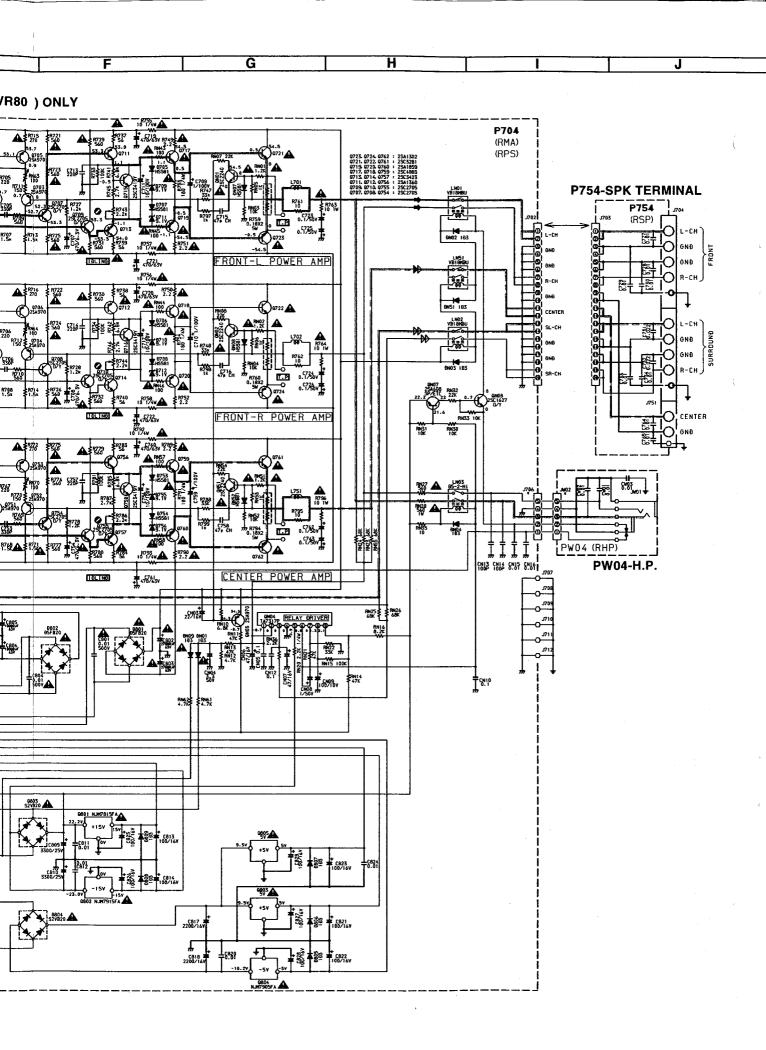


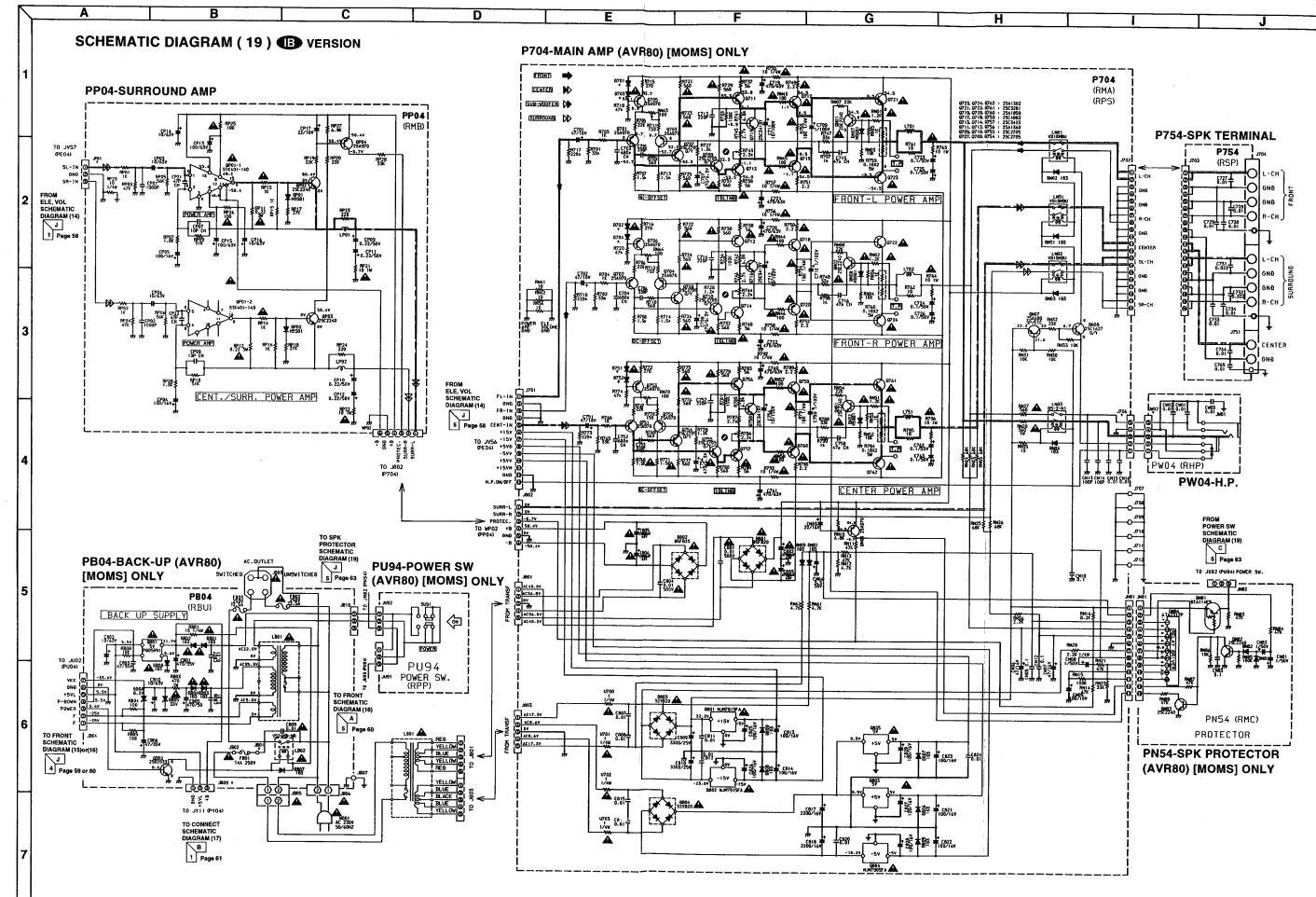


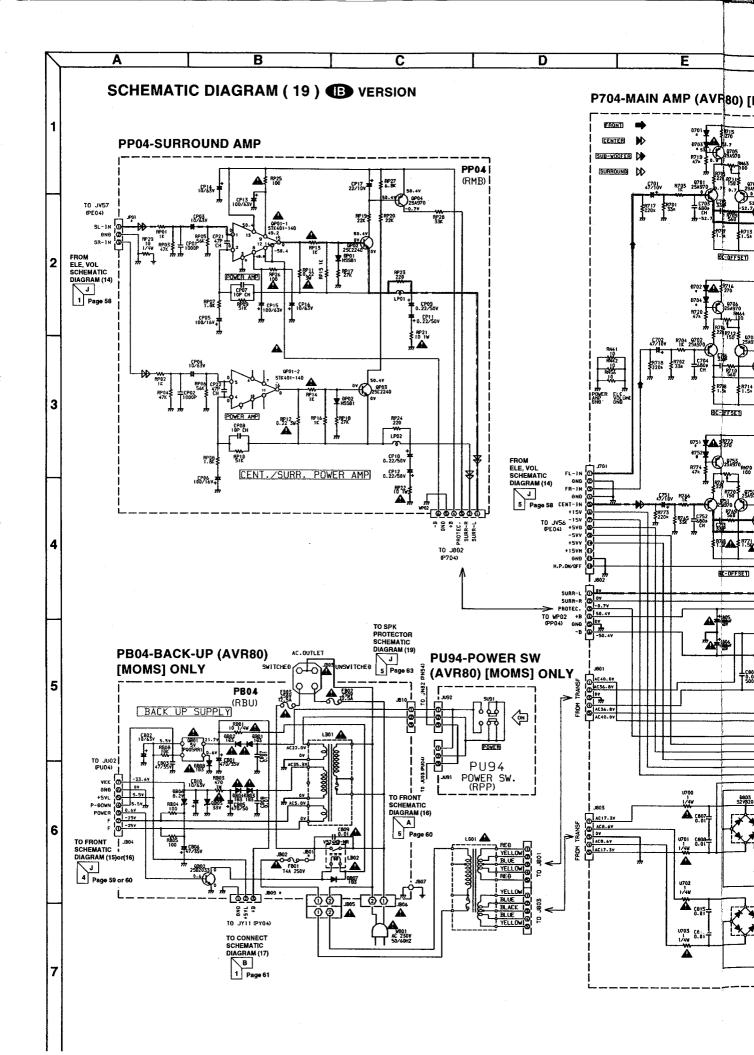


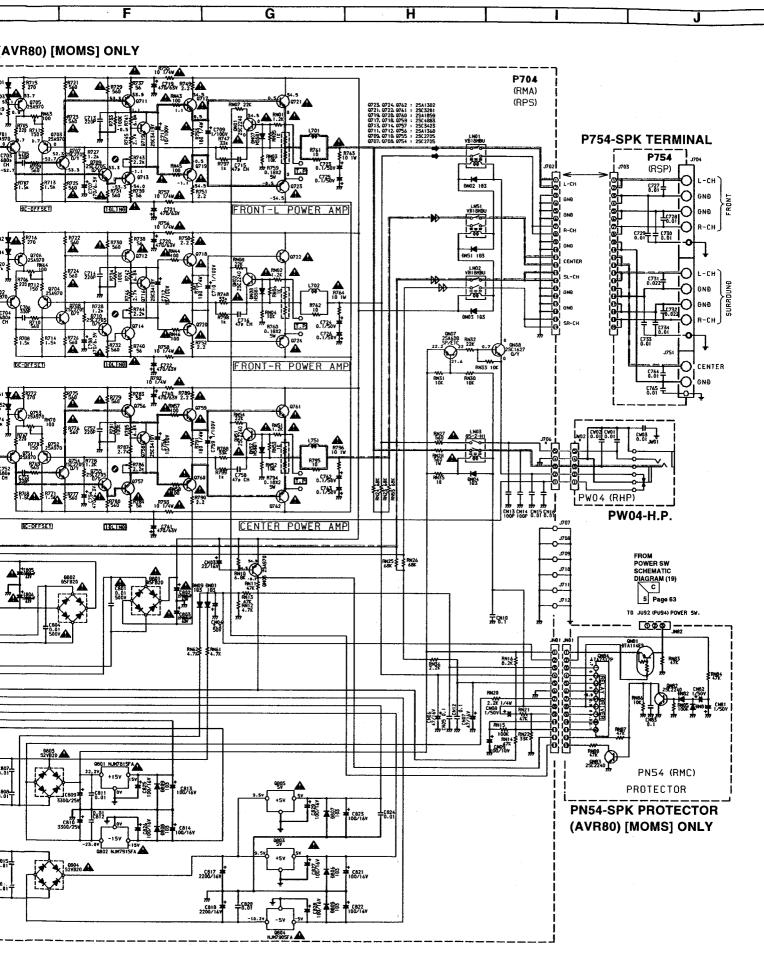


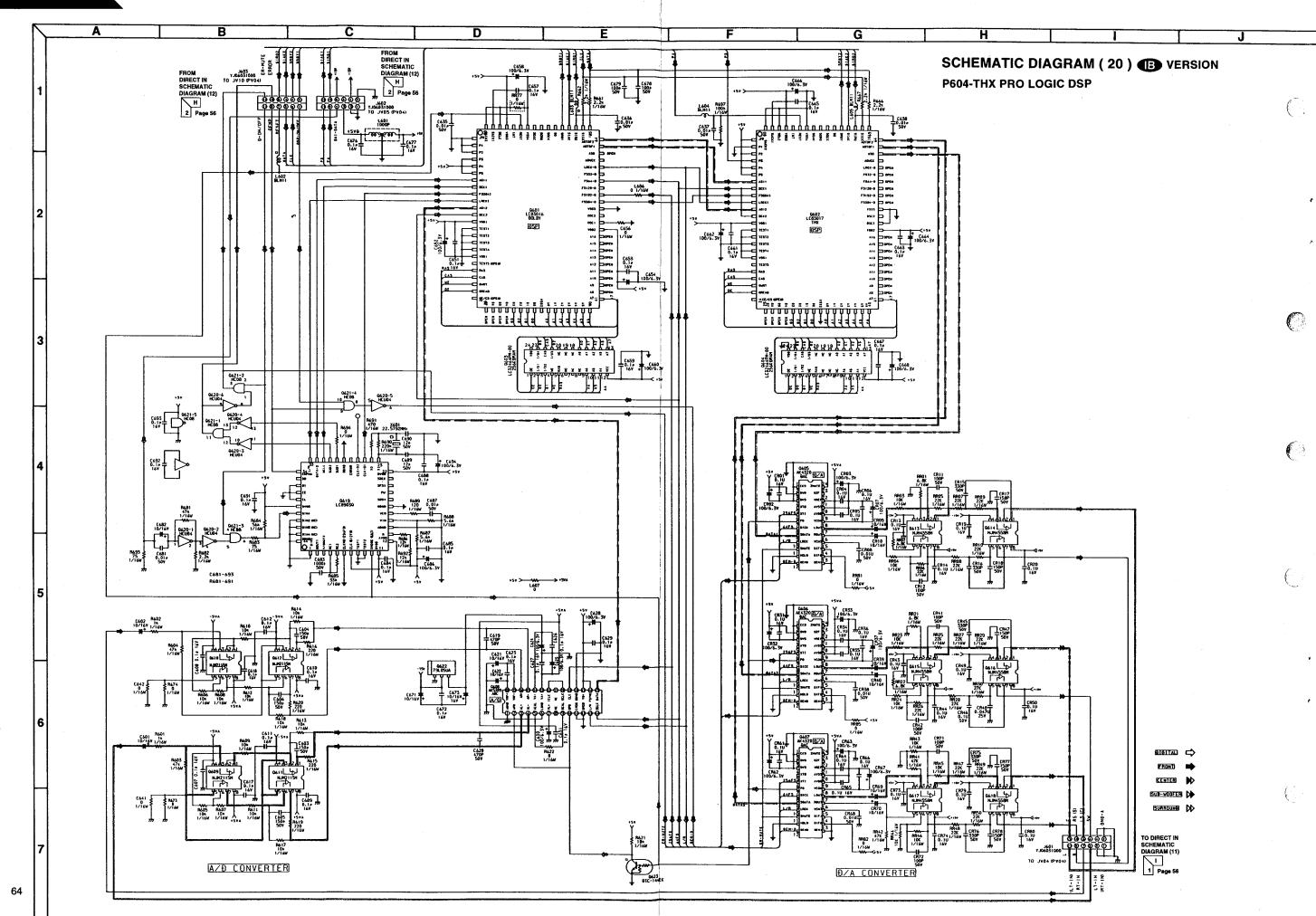


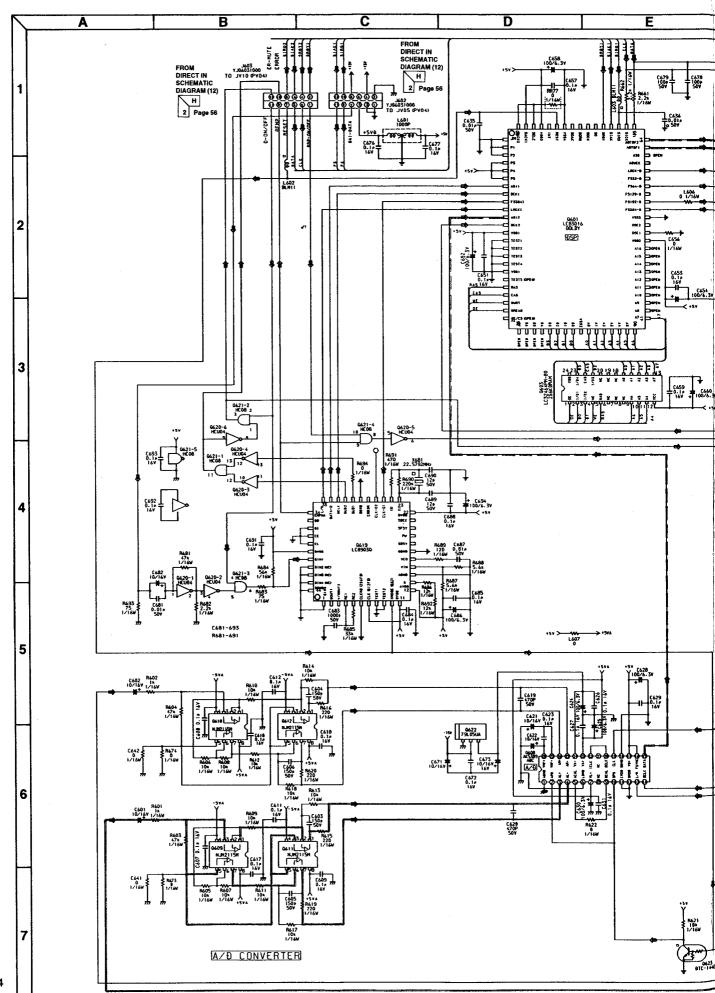


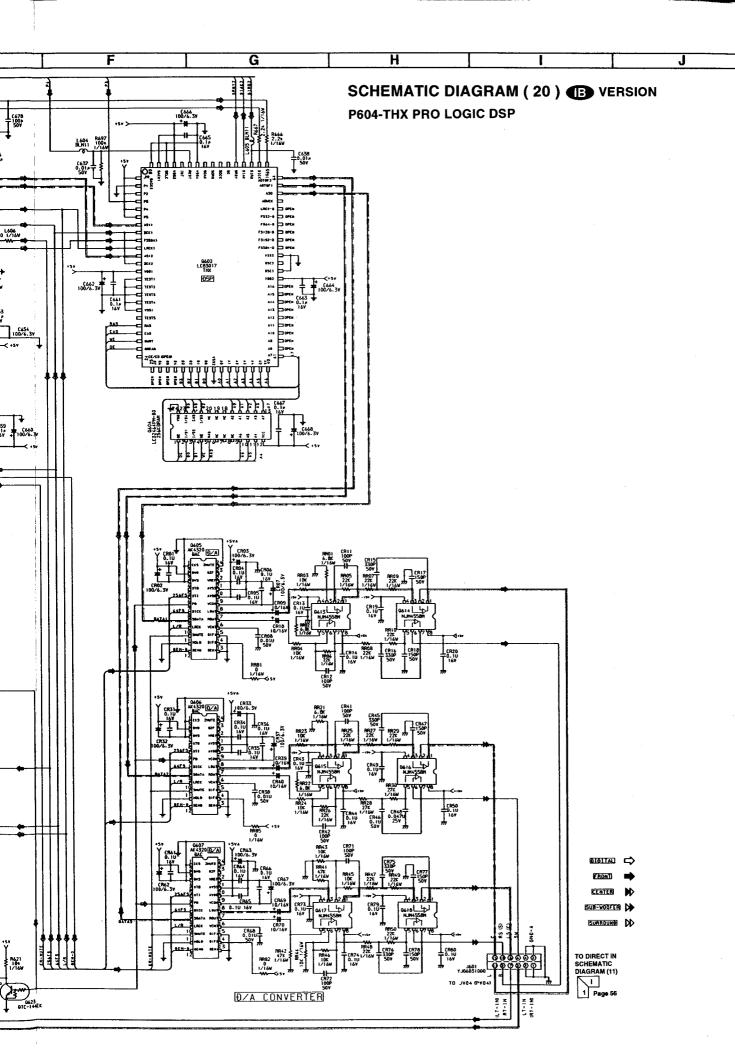


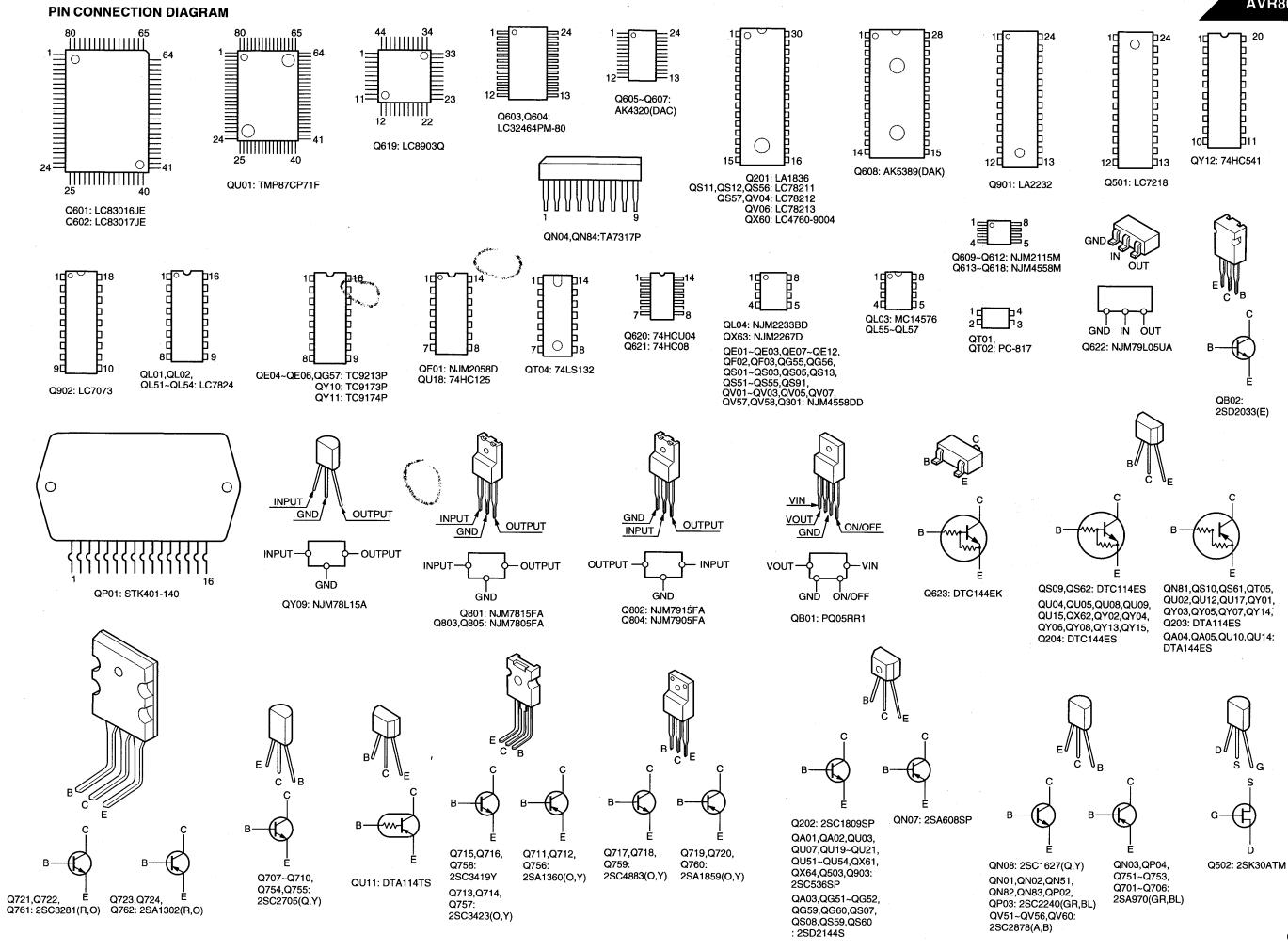












PIN CONNECTION DIAGRAM 80 ||||<u>||||||</u> Q605~Q607: AK4320(DAC Q603,Q604: LC32464PM-80 Q619: LC8903Q 25 QU01: TMP87CP71F 25 Q601: LC83016JE Q602: LC83017JE QN04,QN84:TA7317P Q620: 74H Q621: 74H QT04: 74LS132 QF01: NJM2058D QL01,QL02 QE04~QE06,QG57: TC9213P QY10: TC9173P QU18: 74HC125 QL51~QL54: LC7824 Q902: LC7073 QY11: TC9174P 0 0 **INPUT** GND OUTPUT GŅD **INPUT** OUTPUT INPUT GND **OUTPUT** OUTPUT 16 GŃD QP01: STK401-140 GND Q802: NJN Q804: NJN QY09: NJM78L15A Q801: NJM7815FA Q803,Q805: NJM7805FA Q717,Q718, Q711,Q712, Q715,Q716, Q759: Q758: Q756: 2SC4883(O,Y 2SA1360(O,Y) 2SC3419Y Q707~Q710, QU11: DTA114TS Q754,Q755: Q713,Q714, Q723,Q724, 2SC2705(Q,Y) Q721,Q722, Q757: Q761: 2SC3281(R,O) Q762: 2SA1302(R,O) 2SC3423(O,Y)

